

# The Tapestry of Science

I N T E R D I S C I P L I N A R Y R E S E A R C H

TRANSLATIONAL RESEARCH

STATISTICS

BIOLOGY

CLINICAL RESEARCH

MATHEMATICS

BASIC RESEARCH

CHEMISTRY

ENGINEERING

INFORMATICS

COMPUTER SCIENCE

PHYSICS

## 2006

### Summer Research Program

Student Poster Day

Thursday, August 3, 2006  
NIH Clinical Center



*Office of Intramural Training and Education  
National Institutes of Health  
Department of Health and Human Services*



## **NIH Summer Research Program Poster Day**

Learning to communicate research findings is an essential part of a young scientist's development. Poster Day is intended to provide a forum for students in the NIH summer research programs to showcase their accomplishments before peers and the scientific community. We are happy to welcome these young researchers into an environment where the free exchange of ideas is vital to the advancement of science. They are to be congratulated on their achievements and encouraged to continue their preparation to become a part of the next generation of biomedical scientists. I would also like to salute their preceptors in our clinics and laboratories whose guidance and direction is crucial to the success of this program.

A handwritten signature in black ink that reads "Michael M. Gottesman". The signature is written in a cursive style with a large, sweeping initial "M".

Michael M. Gottesman, MD

Deputy Director for Intramural Research

National Institutes of Health

- **Morning Session, 9:30 a.m. – 11:00 a.m.**
- ◇ **Lunch Session, 11:30 a.m. – 1:00 p.m.**
- **Afternoon Session, 1:30 p.m. – 3:00 p.m.**

## Table of Contents

■	1	Center for Biologics Evaluation and Research, FDA <b>(CBER-OCTGT-DCGT)</b>
■	2	Center for Biologics Evaluation and Research, FDA <b>(CBER-OVRR-DBPAP)</b>
■	3	Center for Biologics Evaluation and Research, FDA <b>(CBER-OVRR-DVP)</b>
■	4	Center for Biologics Evaluation and Research, FDA <b>(CBER-OBRR-DH)</b>
■	5	Center for Information Technology <b>(CIT)</b>
◇	6	National Cancer Institute – Center for Cancer Research <b>(NCI-CCR)</b>
◇	15	National Cancer Institute – Division of Cancer Control and Population Sciences <b>(NCI-DCCPS)</b>
◇	16	National Cancer Institute – Division of Cancer Epidemiology and Genetics <b>(NCI-DCEG)</b>
■	17	National Center for Complementary and Alternative Medicine <b>(NCCAM)</b>
■	18	National Eye Institute <b>(NEI)</b>
■	20	National Heart, Lung, and Blood Institute <b>(NHLBI)</b>
◇	23	National Human Genome Research Institute <b>(NHGRI)</b>
■	24	National Institute of Allergy and Infectious Diseases <b>(NIAID)</b>
■	26	National Institute of Allergy and Infectious Diseases – Vaccine Research Center <b>(NIAID-VRC)</b>
■	27	National Institute of Arthritis and Musculoskeletal and Skin Diseases <b>(NIAMS)</b>
■	29	National Institute of Biomedical Imaging and Bioengineering <b>(NIBIB)</b>
○	30	National Institute of Child Health and Human Development <b>(NICHD)</b>
◇	34	National Institute of Dental and Craniofacial Research <b>(NIDCR)</b>
■	35	National Institute of Diabetes and Digestive and Kidney Diseases <b>(NIDDK)</b>
■	38	National Institute of Environmental Health Sciences <b>(NIEHS)</b>
○	39	National Institute of Mental Health <b>(NIMH)</b>
○	42	National Institute of Neurological Disorders and Stroke <b>(NINDS)</b>
■	47	National Institute of Nursing Research <b>(NINR)</b>
◇	48	National Institute on Aging <b>(NIA)</b>
◇	52	National Institute on Alcohol Abuse and Alcoholism <b>(NIAAA)</b>
○	53	National Institute on Deafness and Other Communication Disorders <b>(NIDCD)</b>
○	54	National Institute on Drug Abuse <b>(NIDA)</b>
○	57	National Library of Medicine – Lister Hill National Center for Biomedical Communications <b>(NLM-LHNCBC)</b>
○	58	National Library of Medicine – National Center for Biotechnology Information <b>(NLM-NCBI)</b>
■	59	NIH Clinical Center <b>(CC)</b>
○	62	Office of the Director/Office of Intramural Research <b>(OD/OIR)</b>
	63	Index of Participants
	69	Index of Educational Institutions of Participants

## **Morning Session**

**9:30 a.m. – 11:00 a.m.**

Center for Biologics Evaluation and Research, FDA **(CBER-OCTGT-DCGT)**

Center for Biologics Evaluation and Research, FDA **(CBER-OVRR-DBPAP)**

Center for Biologics Evaluation and Research, FDA **(CBER-OVRR-DVP)**

Center for Biologics Evaluation and Research, FDA **(CBER-OBRR-DH)**

Center for Information Technology **(CIT)**

National Center for Complementary and Alternative Medicine **(NCCAM)**

National Eye Institute **(NEI)**

National Heart, Lung, and Blood Institute **(NHLBI)**

National Institute of Allergy and Infectious Diseases **(NIAID)**

National Institute of Allergy and Infectious Diseases – Vaccine Research Center **(NIAID-VRC)**

National Institute of Arthritis and Musculoskeletal and Skin Diseases **(NIAMS)**

National Institute of Biomedical Imaging and Bioengineering **(NIBIB)**

National Institute of Diabetes and Digestive and Kidney Diseases **(NIDDK)**

National Institute of Environmental Health Sciences **(NIEHS)**

National Institute of Nursing Research **(NINR)**

NIH Clinical Center **(CC)**

## **Lunch Session**

**11:30 a.m. – 1:00 p.m.**

National Cancer Institute – Center for Cancer Research **(NCI-CCR)**

National Cancer Institute – Division of Cancer Control and Population Sciences **(NCI-DCCPS)**

National Cancer Institute – Division of Cancer Epidemiology and Genetics **(NCI-DCEG)**

National Human Genome Research Institute **(NHGRI)**

National Institute of Dental and Craniofacial Research **(NIDCR)**

National Institute on Aging **(NIA)**

National Institute on Alcohol Abuse and Alcoholism **(NIAAA)**

## **Afternoon Session**

**1:30 p.m. – 3:00 p.m.**

National Institute of Child Health and Human Development **(NICHD)**

National Institute of Mental Health **(NIMH)**

National Institute of Neurological Disorders and Stroke **(NINDS)**

National Institute on Deafness and Other Communication Disorders **(NIDCD)**

National Institute on Drug Abuse **(NIDA)**

National Library of Medicine – Lister Hill National Center for Biomedical Communications **(NLM-LHNCBC)**

National Library of Medicine – National Center for Biotechnology Information **(NLM-NCBI)**

Office of the Director/Office of Intramural Research **(OD/OIR)**

## **Center for Biologics Evaluation and Research, FDA (CBER-OCTGT-DCGT)**

I • Sami A. Siddiqui

*Gene Expression Changes in the*

*Differentiation of Human NT2*

*Cells into Neurons*

University of Virginia

Hometown: McLean, VA

Dr. Jennifer G. Catalano, Preceptor

Laboratory of Molecular Tumor Biology

## Center for Biologics Evaluation and Research, FDA (CBER-OVRR-DBPAP)

### 2 • Patrick Feng

*Campylobacter jejuni* Induces  
*alpha-Defensin* Production in

*Human Intestinal Cells*

Wootton High School

Hometown: Rockville, MD

Dr. Lan Hu,

Dr. Dennis J. Kopecko, Preceptors

Laboratory of Enteric and Sexually

Transmitted Diseases

### 3 • Dignamartha Kakkanattu

*Development of Oral Vaccine of*

*Tetanus Toxoid (Fragment C) in*

*Salmonella typhi Ty21a*

Gaithersburg High School

Hometown: Gaithersburg, MD

Dr. Siba Bhattacharya, Preceptor

Laboratory of Enteric and Sexually

Transmitted Diseases

### 4 • Maria B. Navarro

*Genes Expressed by Dendritic Cells*

*in Response to RSV*

Gaithersburg High School

Hometown: Montgomery Village, MD

Dr. Ronald L. Rabin, Preceptor

Laboratory of Immunobiochemistry

## **Center for Biologics Evaluation and Research, FDA (CBER-OVRR-DVP)**

**5 • Chiraag D. Patel**  
*Particle Vaccines for Enhanced  
Immunogenicity*  
St. George's University  
Hometown: Silver Spring, MD  
Dr. Ira Berkower, Preceptor  
Laboratory of Immunoregulation

## Center for Biologics Evaluation and Research, FDA (CBER-OBRR-DH)

**6 •** Alexandra L. Dobkin

*Exploring Alternative Spliced Forms of the ADAMTS13 Gene*  
Winston Churchill High School  
Hometown: Potomac, MD  
Dr. Chava Kimchi-Sarfaty, Preceptor  
Laboratory of Hemostasis

**7 •** Tanvi Gupta

*A Search for Conformational Sensitive Antibodies for ADAMTS13: The von Willebrand Factor Protease*  
Richard Montgomery High School  
Hometown: Derwood, MD  
Dr. Chava Kimchi-Sarfaty, Preceptor  
Laboratory of Hemostasis

**8 •** Gabriel M. Kim

*Investigation of Alpha 1-Proteinase Inhibitor Polymer Structure by Limited Proteolytic Digestion and Mass Spectrometry Analysis*  
Johns Hopkins University  
Hometown: West Friendship, MD  
Dr. Ewa Marszal,  
Dr. Robert A. Boykins, Preceptors  
Laboratory of Biochemistry and Vascular Biology

**9 •** Eli D. Shoham

*Investigation of in vitro Complexes of Alpha 1-Proteinase Inhibitor with Retinoic Acid*  
University of Wisconsin  
Hometown: Rockville, MD  
Dr. Elena Karnaukhova, Preceptor  
Laboratory of Plasma Derivatives

**10 •** Mona Zhang

*Analysis of Recombinant von Willebrand Factor Protein*  
Richard Montgomery High School  
Hometown: Gaithersburg, MD  
Dr. Chava Kimchi-Sarfaty,  
Ms. Courtnei E. Allen, Preceptors  
Laboratory of Hemostasis

## Center for Information Technology (CIT)

II • Giun Sun

*Ranking and Presenting Gene-Disease  
Associations from Biomedical Literature*

Radford University

Hometown: Dumfries, VA

Mr: William Lau,

Mr: Huey Cheung, Preceptors

Division of Computational Bioscience

## National Cancer Institute – Center for Cancer Research (NCI-CCR)

- 12 •** Nikita Agrawal  
*Detecting Mouse Plasmacytoma-specific IgH/c-Myc Translocations in Formalin-fixed Paraffin-embedded Tissues by FISH*  
Saline High School  
Hometown: Saline, MI  
Dr. Siegfried Janz,  
Dr. Alexander Kovalchuk, Preceptors  
Laboratory of Genetics
- 13 •** Bernadine Akukwe,  
Nisha M. Broodie  
*Human Cripto-1 and Tumor Angiogenesis*  
Hunter College  
University of Miami  
Hometown: Rockville, MD  
Rockville, MD  
Dr. Caterina Bianco, Preceptor  
Mammary Biology and Tumorigenesis  
Laboratory
- 14 •** Jessica C. Amlin  
*Candidate Modifiers of Cancer Susceptibility in the Nf1; p53 Mouse Model of Neurofibromatosis*  
Ohio Wesleyan University  
Hometown: Bethesda, MD  
Dr. Karlyne M. Reilly, Preceptor  
Mouse Cancer Genetics Program
- 15 •** Theonine Anastassiadis  
*Biological Effects of Growth Factors on Astrocytoma Cell Lines*  
Haverford College  
Hometown: Potomac, MD  
Dr. Karlyne M. Reilly, Preceptor  
Mouse Cancer Genetics Program
- 16 •** Jeremiah Asante  
*Histologic Imaging of Prostate Whole Mount Tissue Sections for Histologic and Downstream Molecular Analysis*  
Gaithersburg High School  
Hometown: Gaithersburg, MD  
Dr. Heidi Erickson, Preceptor  
Laboratory of Pathology
- 17 •** Benjamin A. Ashwell  
*LAT Trafficking in Activated T Cells: The Use of Photoswitchable Fluorescent Reagents*  
Walter Johnson High School  
Hometown: Bethesda, MD  
Dr. Lawrence E. Samelson,  
Dr. Lakshmi Balagopalan, Preceptors  
Laboratory of Cellular and  
Molecular Biology
- 18 •** Nader A. Ayub  
*Pre-clinical Evaluation of Nanotechnology-derived Drug Delivery Platforms: Insight into Blood-contact Properties of Colloidal Gold Nanoparticles*  
Texas A&M University  
Hometown: Arlington, TX  
Dr. Marina A. Dobrovolskaia,  
Dr. Scott McNeil, Preceptors  
SAIC–Nanotechnology  
Characterization Laboratory
- 19 •** Natalie Baggett  
*The Role of Antiviral Proteins in HIV/FIV*  
Middletown High School  
Hometown: Frederick, MD  
Dr. Jennifer Troyer,  
Ms. Valerie A. Buckley-Beason, Preceptors  
Laboratory of Genomic Diversity
- 20 •** Brandon J. Baird  
*The Role of Specific Regulatory Regions within the H2AX Promoter on Protein Expression*  
University of North Carolina  
Hometown: Washington, DC  
Dr. William M. Bonner,  
Dr. Jennifer Dickey, Preceptors  
Laboratory of Molecular Pharmacology
- 21 •** Karine D. Barnes  
*DNA Replication Program in Human Cells Analyzed on Individual DNA Molecules*  
Julia Reynolds Masterman Laboratory  
and Demonstration School  
Hometown: Philadelphia, PA  
Dr. Chiara Conti, Preceptor  
Laboratory of Molecular Pharmacology
- 22 •** Caitlin E. Baum  
*The Impact of Genetic Variation on Docetaxel Pharmacodynamics in Patients with Androgen-independent Prostate Cancer*  
University of Maryland,  
Baltimore County  
Hometown: Gaithersburg, MD  
Dr. William D. Figg, Preceptor  
Medical Oncology Branch
- 23 •** Chelsea M. Black  
*Cellular Characterization of ABC Transporters ABCB7, ABCB8, and ABCB10*  
Virginia Polytechnic Institute and  
State University  
Hometown: Reston, VA  
Dr. Michael M. Gottesman,  
Dr. Jill K. Paterson, Preceptors  
Laboratory of Cell Biology
- 24 •** Kevin G. Blas  
*Analysis of Homologous Recombination (HR) in Cells Lacking DNA-PK*  
University of Michigan  
Hometown: Columbia, SC  
Dr. Chamelli Jhappan,  
Dr. Alfred C. Johnson, Preceptors  
Laboratory of Cell Regulation  
and Carcinogenesis
- 25 •** Adam L. Brandt, Fatima A. Hussain  
*Comparative Mammalian Genetics*  
Frostburg State University  
Thomas Johnson High School  
Hometown: New Market, MD  
Frederick, MD  
Dr. Alfred L. Roca, Preceptor  
Laboratory of Genomic Diversity
- 26 •** Jason L. Campbell  
*The Role of Tissue Inhibitor of Matrix Metalloproteinases in Apoptosis in Burkitt's Cell Lines*  
Georgetown Day High School  
Hometown: Washington, DC  
Dr. Maryalice Stetler-Stevenson, Preceptor  
Laboratory of Pathology

- 27 • David Chen**  
*cAMP Visualization in Chemotaxing Cells*  
Thomas S. Wootton High School  
Hometown: North Potomac, MD  
Dr. Carole A. Parent, Preceptor  
Laboratory of Cellular and  
Molecular Biology
- 28 • Adam G. Cockell**  
*Identification of a Gene Signature That  
Can Predict Survival in Suboptimally  
Debulked Patients with High-grade  
Late-stage Serous Ovarian Cancer*  
St. Albans School  
Hometown: Silver Spring, MD  
Dr. Michael Birrer, Preceptor  
Cell and Cancer Biology Branch
- 29 • Karen E. Cress**  
*A Search for Synergy: Maximizing  
Efficacy of Drug Combinations in  
Small Cell Lung Cancer*  
University of Texas Medical School  
at Houston  
Hometown: Las Cruces, NM  
Dr. Ana I. Robles, Preceptor  
Laboratory of Human Carcinogenesis
- 30 • Luciann L. Cuenca**  
*The Catalytic Cycle of ATP Hydrolysis  
by P-glycoprotein (ABCB1): Role of  
Conserved D-loop Domain*  
Catholic University of America  
Hometown: Newark, NJ  
Dr. Suresh V. Ambudkar,  
Dr. Inwha Kim, Preceptors  
Laboratory of Cell Biology
- 31 • Tu D. Dan**  
*Vascular Endothelial Growth  
Factor D as a Prognostic  
Marker in Inflammatory  
Breast Cancer*  
University of Florida  
Hometown: Tampa, FL  
Dr. Sandra Swain, Preceptor  
Medical Oncology Branch
- 32 • Hong T. Dang**  
*IL-15 Alters Bid Expression in Natural  
Killer Cells: A Potential Role in Cell Cycle*  
University of California, Riverside  
Hometown: San Jose, CA  
Dr. Howard Young,  
Dr. Deborah L. Hodge, Preceptors  
Laboratory of Experimental Immunology
- 33 • Kristen M. Danley**  
*HIV-1 Population Genetics in vivo*  
Bucknell University  
Hometown: Germantown, MD  
Dr. Frank Maldarelli, Preceptor  
HIV DRP Host-Virus Interaction Branch
- 34 • Merlyn Deng**  
*Characterization of UAP56 and URH49  
in KSHV-ORF57 Gene Regulation*  
Montgomery Blair High School  
Hometown: Bethesda, MD  
Dr. Vladimir Majerciak,  
Dr. Zhi-ming Zheng, Preceptors  
HIV and AIDS Malignancy Branch
- 35 • Lauren S. Dutcher**  
*Infecting Endothelial Cells with Kaposi's  
Sarcoma-associated Herpesvirus*  
Yale College  
Hometown: Rockville, MD  
Dr. Robert Yarchoan,  
Dr. Paula Velasco, Preceptors  
HIV and AIDS Malignancy Branch
- 36 • Beeta Ehdaie**  
*Nanotechnology in Cancer Research*  
University of Virginia  
Hometown: Burke, VA  
Mr. Travis Earles, Preceptor  
NCI Alliance with Nanotechnology  
in Cancer
- 37 • Cecilia Ekperi**  
*Small RNA Regulators of Outer  
Membrane Proteins*  
Harvard College  
Hometown: Washington, DC  
Dr. Maude Guillier,  
Dr. Susan Gottesman, Preceptors  
Laboratory of Molecular Biology
- 38 • Benjamin H. Espina**  
*Determination of FineFix Fixation on  
Histologic Quality and Recovery of  
RNA for Human Prostate Tissue*  
St. Mary's College of Maryland  
Hometown: Rockville, MD  
Dr. John W. Gillespie, Preceptor  
Laboratory of Pathology
- 39 • Salma Faghri**  
*Trichothiodystrophy –  
A Tail of Broken Hair*  
Brown Medical School  
Hometown: East Greenwich, RI  
Dr. Kenneth Kraemer,  
Dr. John DiGiovanna, Preceptors  
Basic Research Laboratory-Bethesda
- 40 • Carolina E. Fasola**  
*Homozygosity Mapping Using  
High-density SNP Genotypes*  
Emory University School of Medicine  
Hometown: Atlanta, GA  
Dr. Jeffrey P. Struewing, Preceptor  
Laboratory of Population Genetics
- 41 • Alexander H. Fischer**  
*Gene Expression Analysis Using  
RT-PCR in Colorectal Cancer  
Cell Lines*  
Eleanor Roosevelt High School  
Hometown: Greenbelt, MD  
Dr. Michael J. DiFilippantonio, Preceptor  
Genetics Branch
- 42 • Nicholas G. Francella**  
*Ceramide Derivatives as Inhibitors  
of gp120-mediated HIV-1  
Membrane Fusion*  
St. Mary's College of Maryland  
Hometown: Thurmont, MD  
Dr. Himanshu Garg,  
Dr. Anu Puri, Preceptors  
Nanobiology Program

- 43 • Azam Ghafoor**  
*Biostatistical Assessment of Real-time Phospho-proteomic Signaling Profiles of Human Tumors in Response to Perfused Chemotherapy Treatment in vivo*  
 Purdue University  
 Hometown: West Lafayette, IN  
 Dr. Katherine Calvo,  
 Dr. Elaine Jaffe, Preceptors  
 Laboratory of Pathology
- 44 • Taylor Gilliland**  
*Addressing the Global AIDS Epidemic: Non-subtype B HIV-1 Protease*  
 University of Florida  
 Hometown: Gainesville, FL  
 Dr. Alex Wlodawer, Preceptor  
 Macromolecular Crystallography Laboratory
- 45 • Lauren A. Glover**  
*In vitro Effects of Cyclin-dependent Kinase Inhibitor on Mouse Plasmacytoma Cell Lines*  
 Spring-Ford Senior High School  
 Hometown: Collegeville, PA  
 Dr. Beverly A. Mock,  
 Dr. Jyoti B. Patel, Preceptors  
 Laboratory of Genetics
- 46 • Ksenia Gouliava**  
*Gamma-H2AX Is a Biomarker for Low Dose Irradiation Exposure in Humans*  
 University of Maryland,  
 Baltimore County  
 Hometown: Rockville, MD  
 Dr. Olga Sedelnikova,  
 Dr. Christophe Redon, Preceptors  
 Laboratory of Molecular Pharmacology
- 47 • Sarah M. Greenblatt**  
*The Effect of TRICOM Signaling on the Proliferation and Apoptosis of Human Influenza Specific Memory CTL*  
 University of North Carolina  
 Hometown: Germantown, MD  
 Dr. Sixun Yang, Preceptor  
 Laboratory of Tumor Immunology and Biology
- 48 • Natalie Guerrero**  
*The Recovery and Quality of Biomolecules in Formalin Fixed, Paraffin Embedded Tissue*  
 Whitney M. Young Magnet High School  
 Hometown: Chicago, IL  
 Dr. Stephen Hewitt, Preceptor  
 Laboratory of Pathology
- 49 • Xuelei Guo**  
*Generation and Analysis of Transgenic Mice Over-expressing CAPC Protein*  
 University of California, Berkeley  
 Hometown: North Potomac, MD  
 Dr. Tapan Bera,  
 Dr. Ira Pastan, Preceptors  
 Laboratory of Molecular Biology
- 50 • Shakeeb Z. Hakim**  
*Differences and Similarities between Type I and Type III Interferons*  
 Virginia Commonwealth University  
 Hometown: Burke, VA  
 Dr. Ana Gamero,  
 Dr. Stephen Maher, Preceptors  
 Laboratory of Experimental Immunology
- 51 • Rebecca A. Hardy**  
*Assessing BRCA1/2 Candidate Modifier Genes*  
 University of Virginia  
 Hometown: Fairfax Station, VA  
 Dr. Jeffery P. Struewing, Preceptor  
 Laboratory of Population Genetics
- 52 • Leah E. Harford**  
*Expression of BAG-3 in the NCI 60 Cell Line Screen*  
 Georgetown University  
 Hometown: Potomac, MD  
 Dr. Elise C. Kohn,  
 Dr. Jareer Kassis, Preceptors  
 Laboratory of Pathology
- 53 • Solveig Helgadóttir**  
*Differentiation of Human Embryonic Stem Cells into Hepatocytic Lineage*  
 University of Iceland  
 Hometown: Bethesda, MD  
 Dr. Snorri S. Thorgeirsson,  
 Dr. Janne Jensen, Preceptors  
 Laboratory of Experimental Carcinogenesis
- 54 • Tina Ho**  
*Substrate Recognition by Clp Proteins of E. coli*  
 College of William and Mary  
 Hometown: Springfield, VA  
 Dr. Sue Wickner, Preceptor  
 Laboratory of Molecular Biology
- 55 • Aaron R. Hoffman**  
*An Online Database Development Project for Protein Interaction Data Exchange, Antibody Development, and Other Resources to Serve CCR Investigators*  
 Vassar College  
 Hometown: East Greenwich, RI  
 Dr. David J. Goldstein,  
 Dr. Shoshana Segal, Preceptors  
 Laboratory of Cellular Carcinogenesis and Tumor Promotion
- 56 • Ellie S. Hong**  
*Impact of Allelic Variation within ABCB1 on the Pharmacokinetics of Vinblastine with Valspodar (PSC833)*  
 Phillips Exeter Academy  
 Hometown: Brooklyn, NY  
 Dr. William D. Figg,  
 Dr. Douglas K. Price, Preceptors  
 Medical Oncology Branch
- 57 • Inga L. Ingvarsdóttir**  
*Factors Affecting Hepatocytic Differentiation of Murine Embryonic Stem Cells*  
 University of Iceland  
 Hometown: Bethesda, MD  
 Dr. Snorri S. Thorgeirsson,  
 Dr. Jeonghoon Heo, Preceptors  
 Laboratory of Experimental Carcinogenesis

- 58 • Cristina Irimia**  
*Synthesis of Small Organic Molecules*  
Amherst College  
Hometown: Amherst, MA  
Dr. Ettore Appella,  
Dr. Jeong Bang, Preceptors  
Laboratory of Cell Biology
- 59 • Patrick Jean Baptiste**  
*Regulatory Circuits in Sigma S (RpoS) Turnover*  
North Miami Beach Senior High School  
Hometown: North Bethesda, MD  
Dr. Susan Gottesman,  
Dr. Alexandre Bougdour, Preceptors  
Laboratory of Molecular Biology
- 60 • Courtney M. Johnson**  
*Effect of Curcumin on EGFR Expression in Lung Cancer Cells*  
Tougaloo College  
Hometown: Rockville, MD  
Dr. Alfred C. Johnson, Preceptor  
Laboratory of Molecular Biology
- 61 • Erica N. Jones**  
*The Concentrations of ATP-dependent Proteases in MC4100 and MG1655 Strains of E.coli K12*  
Howard University  
Hometown: Silver Spring, MD  
Dr. Michael R. Maurizi, Preceptor  
Laboratory of Cell Biology
- 62 • Amy Joshi**  
*Experimental Protocols Used for High Throughput Analysis of RNA Expression*  
Palm Beach Gardens High School  
Hometown: Royal Palm Beach, FL  
Dr. Karen Woodson,  
Dr. Audrey Player, Preceptors  
Genetics Branch
- 63 • Teddy T. Kamata**  
*Novel Protein Interactors for EphrinB1*  
Frederick High School  
Hometown: Frederick, MD  
Dr. Ira O. Daar, Preceptor  
Laboratory of Protein Dynamics and Signaling
- 64 • Aditya Kanesa-Thanan**  
*Electron Tomography of Viruses and Cells: Automated Segmentation and Analysis of 3D Cellular Images*  
Lexington High School  
Hometown: Bethesda, MD  
Dr. Sriram Subramaniam,  
Dr. Alberto Bartesaghi, Preceptors  
Laboratory of Cell Biology
- 65 • Eugene Kang**  
*Cancer Research*  
College of William and Mary  
Hometown: Potomac, MD  
Dr. Kyung S. Lee, Preceptor  
Laboratory of Metabolism
- 66 • Meggan L. Keller**  
*Quantification of Fluorescent Optical Imaging Using a Standardized Phantom*  
University of Illinois  
Hometown: Crystal Lake, IL  
Dr. Peter Choyke, Preceptor  
Molecular Imaging Program
- 67 • Michael G. Kennedy**  
*Evaluation of ROR1 as a Novel Target for Monoclonal Antibody Therapy of Chronic Lymphocytic Leukemia*  
University of Maryland  
Hometown: Mount Airy, MD  
Dr. Christoph Rader,  
Dr. Sivasubramanian Baskar, Preceptors  
Experimental Transplantation and Immunology Branch
- 68 • Bo-kyu Kim**  
*Targeting COP1, a Negative Regulator of p53, in Human Hepatocellular Carcinoma Treatment*  
Purdue University  
Hometown: West Lafayette, IN  
Dr. Yun-Han Lee,  
Dr. Snorri S. Thorgeirsson, Preceptors  
Laboratory of Experimental Carcinogenesis
- 69 • Sudesna Lakshman**  
*T Cell Receptor Trafficking during Live Cell Imaging*  
Eleanor Roosevelt High School  
Hometown: Greenbelt, MD  
Dr. Lawrence E. Samelson,  
Dr. Kelsie M. Bernot, Preceptors  
Laboratory of Cellular and Molecular Biology
- 70 • Grace C. Lee**  
*Interleukin-10 Promoter Gene Polymorphisms and Their Influence on Interleukin-10 Protein Levels among Participants in the Polyp Prevention Trial*  
Richard Montgomery High School  
Hometown: Potomac, MD  
Dr. Elaine Lanza, Preceptor  
Laboratory of Cancer Prevention
- 71 • Dayan Li**  
*Modulation of Endothelial Cell Gene Expression in TSP1-NO Crosstalk*  
Eleanor Roosevelt High School  
Hometown: Laurel, MD  
Dr. Jeffrey Isenberg,  
Dr. David D. Roberts, Preceptors  
Laboratory of Pathology
- 72 • Kimberly S. Limentani**  
*The von Hippel-Lindau Tumor Suppressor Gene Represses Oncogenic beta-Catenin Signaling in Renal Carcinoma Cells*  
University of North Carolina  
Hometown: Waxhaw, NC  
Dr. Donald P. Bottaro, Preceptor  
Urologic Oncology Branch

- 73 • Robert U. Linnoila**  
*Analysis of Gene Expression during Liver Regeneration in Wild-type and Conditional Met Knockout Mice*  
Winston Churchill High School  
Hometown: Bethesda, MD  
Dr. Pal Kaposi-Novak,  
Dr. Snorri S. Thorgeirsson, Preceptors  
Laboratory of Experimental Carcinogenesis
- 74 • Philip Loscombe**  
*Robo Signaling Readouts in Endothelial Cells*  
University of Scranton  
Hometown: Plains, PA  
Dr. Ramani Ramchandran, Preceptor  
Laboratory of Pathology
- 75 • Andrew J. Lu**  
*Effects of Bradykinin on Inflammation-induced Hyperalgesia through Desensitization of the Opioid Receptors*  
Case Western Reserve University  
Hometown: Rockville, MD  
Dr. O.M. Zack Howard, Preceptor  
Laboratory of Molecular Immunoregulation
- 76 • Rami S. Maarouf**  
*Effect of Inhibition of Insulin-like Growth Factor 1 on Colon Carcinogenesis*  
University of Virginia  
Hometown: Fairfax, VA  
Dr. Susan Olivo-Marston, Preceptor  
Laboratory of Human Carcinogenesis
- 77 • Priya M. Mathews**  
*Array CGH Analysis of Genomic Copy Number of Primary Rectal Tumors*  
University of Maryland,  
Baltimore County  
Hometown: Beltsville, MD  
Dr. Michael J. Diflippantonio, Preceptor  
Genetics Branch
- 78 • Monika Mathur**  
*Retrospective Evaluation of Family Dissemination of BRCA1 and BRCA2 Negative/Uninformative Test Results*  
Pomperaug Regional High School  
Hometown: Southbury, CT  
Ms. Kathleen Calzone, Preceptor  
Genetics Branch
- 79 • Mara K. McCawley**  
*Characterization of Signaling Pathways in Primary Keratinocytes from TPL2 Knockout Mice*  
Morgantown High School  
Hometown: Morgantown, WV  
Dr. Jonathan S. Wiest,  
Dr. Jyotsna Pandey, Preceptors  
Laboratory of Cellular Carcinogenesis and Tumor Promotion
- 80 • Minal Mehta**  
*Accelerated Plasmacytomas in Double Transgenic i-Myc/IL-6 Gene-insertion Mice*  
University of Maryland  
Hometown: Laurel, MD  
Dr. Siegfried Janz, Preceptor  
Laboratory of Genetics
- 81 • Isaac Mizrahi**  
*Modifier Gene Expression in NF1/Het P53/Het Mouse Models*  
Boston University  
Hometown: North Potomac, MD  
Dr. Karlyne M. Reilly, Preceptor  
Mouse Cancer Genetics Program
- 82 • Bassim S. Mousa**  
*Effect of BAR Downregulation on Caspase 8 in Ewing Sarcoma*  
Virginia Commonwealth University  
School of Medicine  
Hometown: Alexandria, VA  
Dr. Maria Tsokos, Preceptor  
Laboratory of Pathology
- 83 • Anudeep Mukkamala**  
*Wilms' Tumor 1 (WT1) Expression in Lymphoma Cell Lines: Cell Surface vs. Intracytoplasmic*  
University of Michigan  
Hometown: Grand Blanc, MI  
Dr. Maryalice Stetler-Stevenson, Preceptor  
Laboratory of Pathology
- 84 • Peter N. Myers**  
*Methylation Status of Homeobox Genes in Ovarian Cancer Cell Lines*  
Georgetown University  
Hometown: Peoria, IL  
Dr. Michael Birrer,  
Mr. Stephen Yang, Preceptors  
Cell and Cancer Biology Branch
- 85 • Rajesh Narasimha**  
*Electron Tomography of Viruses and Cells: Novel Approaches for Automated Denoising of 3D Images*  
Georgia Institute of Technology  
Hometown: Atlanta, GA  
Dr. Sriram Subramaniam, Preceptor  
Laboratory of Cell Biology
- 86 • Evora J. Newby**  
*Elucidating 14-3-3 Sigma Contributions to the Genetic Signature of High Risk Papillomas and Squamous Cell Carcinomas*  
Virginia Commonwealth University  
School of Medicine  
Hometown: Elizabeth City, NC  
Mr. Andrew Ryscavage,  
Dr. Stuart Yuspa, Preceptors  
Laboratory of Cellular Carcinogenesis and Tumor Promotion
- 87 • My-Linh T. Nguyen**  
*Effect of Telomere-associated Protein Tankyrase-1 on Telomere Length in vivo*  
University of Virginia  
Hometown: Fairfax, VA  
Dr. Richard J. Hodes, Preceptor  
Experimental Immunology Branch

- 88** • Rachael Norman  
*Structural Interactions of CCR5 with HIV-1 Entry Inhibitors*  
Stanford University  
Hometown: Stanford, CA  
Dr. Kenji Maeda,  
Dr. Hiroaki Mitsuya, Preceptors  
HIV and AIDS Malignancy Branch
- 89** • Bhumi K. Patel  
*EpCAM and Hepatocellular Carcinoma*  
Poolesville High School  
Hometown: Germantown, MD  
Dr. Xin W. Wang, Preceptor  
Laboratory of Human Carcinogenesis
- 90** • Jennifer M. Pettiford  
*Use of Lentiviral Transduction to Express the Ewing's Sarcoma Fusion Protein, EWS-FL11, in Human Mesenchymal Stem Cells*  
George Washington University  
Hometown: Vienna, VA  
Dr. Kartik Krishnan, Preceptor  
Pediatric Oncology Branch
- 91** • Candice M. Pfister  
*Investigation of the Relationship between Inflammation and Akt Activation in Breast Cancer*  
Hood College  
Hometown: Martinsburg, WV  
Dr. Stefan Ambs, Preceptor  
Laboratory of Human Carcinogenesis
- 92** • Tienlong N. Pham  
*The Role of Genetic Inheritance on Extracellular Matrix Function and Structure, and Its Role in Tumor Dissemination*  
Suncoast Community High School  
Hometown: Wellington, FL  
Dr. Kent Hunter, Preceptor  
Laboratory of Population Genetics
- 93** • Rachel M. Pierce  
*Acceleration of Leukemic Transformation in CALM-AF10 Transgenic Mice by Retroviral Insertional Mutagenesis*  
Loyola Marymount University  
Hometown: Centennial, CO  
Dr. Peter D. Aplan,  
Dr. David L. Caudell, Preceptors  
Genetics Branch
- 94** • Joshua J. Plant  
*The Relationship of the Homeobox Gene Msx-2 to Expression of Cripto in Mammary Gland Development*  
University of Utah  
Hometown: Germantown, MD  
Dr. Barbara K. Vonderhaar, Preceptor  
Mammary Biology and  
Tumorigenesis Laboratory
- 95** • Rita Poon  
*Osteoclast-activating Factors Produced by Neuroblastoma*  
Richard Montgomery High School  
Hometown: North Potomac, MD  
Dr. Carol Thiele,  
Dr. Amy McKee, Preceptors  
Pediatric Oncology Branch
- 96** • Amber Riblett  
*Structural Analysis of the Bacterial Chemotaxis Machinery*  
Arizona State University  
Hometown: Ardentown, DE  
Dr. Sriram Subramaniam,  
Dr. Cezar Khursigara, Preceptors  
Laboratory of Cell Biology
- 97** • Christine Roche  
*Characterization of Thermosensitive Liposomes for Drug Delivery*  
University of Toledo  
Hometown: Brecksville, OH  
Dr. Jacek Capala, Preceptor  
Radiation Oncology Branch
- 98** • Giselle Roman Hernandez  
*Epidermal Growth Factor Expression during Neural Cell Differentiation*  
University of Puerto Rico  
Hometown: Yauco, PR  
Dr. Alfred C. Johnson, Preceptor  
Laboratory of Molecular Biology
- 99** • Sanna D. Ronkainen  
*Cloning and Expression of Toll-like Receptor Signaling Mediators*  
Rice University  
Hometown: Annandale, VA  
Dr. David M. Segal, Preceptor  
Experimental Immunology Branch
- 100** • Andre D. Rosario  
*Elucidating the Janus Kinase/Signal Transducer and Activator of Transcription Signal Transduction Pathway in Plasma Cell Tumors Induced by v-Abl*  
Howard University  
Hometown: Washington, DC  
Dr. Frederic Mushinski, Preceptor  
Laboratory of Genetics
- 101** • Sarah L. Sammons  
*Characterization of an in vitro Model of Breast Cancer Brain Metastasis*  
University of Delaware  
Hometown: Wilmington, DE  
Dr. Diane Palmieri, Preceptor  
Laboratory of Molecular Pharmacology
- 102** • Apryl S. Scott  
*Regulation of Smad2 Activity by Acetylation*  
Indiana University School of Medicine  
Hometown: Indianapolis, IN  
Dr. Ying Zhang,  
Dr. Caroline Millet, Preceptors  
Laboratory of Cellular and  
Molecular Biology

**103 • Heather M. Selby**  
*Receptor Targeted Optical Imaging of HER-2 Positive Tumors in Cancer Xenografts Using Affibody*  
Illinois Institute of Technology  
Hometown: Barrington, IL  
Dr. Sang-Bong Lee, Preceptor  
Radiation Oncology Branch

**104 • Susan Q. Shen**  
*Critical Kinases in the Control of Skin Inflammation*  
California Institute of Technology  
Hometown: Ames, IA  
Dr. Stuart Yuspa,  
Dr. Francesca Mascia, Preceptors  
Laboratory of Cellular Carcinogenesis and Tumor Promotion

**105 • Ashish Shenoy**  
*Electron Tomography of Viruses and Cells: Automated Segmentation and Analysis of 3D Cellular Images*  
Wootton High School  
Hometown: Rockville, MD  
Dr. Sriram Subramaniam,  
Dr. Alberto Bartesaghi, Preceptors  
Laboratory of Cell Biology

**106 • Rahul Singh**  
*3D Invasion Assay*  
University of Maryland  
Hometown: College Park, MD  
Dr. Sung-Hyeok Hong,  
Dr. Chnad Khanna, Preceptors  
Pediatric Oncology Branch

**107 • Sumegha K. Singhanía,**  
Katherine B. Chiappinelli  
*Functional Genomics of Genes with Small Open Reading Frames (sORFs) in S. cerevisiae*  
University of Maryland  
Haverford College  
Hometown: Germantown, MD  
Washington, DC  
Dr. Munira Basrai,  
Dr. Wei-Chun Au, Preceptors  
Genetics Branch

**108 • Shobhit Singla**  
*Isolation of Novel Transcripts with Vascular Function in Zebrafish*  
Cornell University  
Hometown: Hopkinton, MA  
Dr. Ramani Ramchandran, Preceptor  
Laboratory of Pathology

**109 • Vladimir A. Slesarev**  
*Expression of MAGE Genes in Different Tumor Types*  
University of Maryland  
Hometown: Boyds, MD  
Dr. Olga Aprelikova, Preceptor  
Laboratory of Biosystems and Cancer

**110 • Hilda M. Sola-Soto**  
*Identification of Protein Complexes Using Mass Spectrometry*  
University of Puerto Rico,  
Rio Piedras  
Hometown: Trujillo Alto, PR  
Dr. Timothy Veenstra, Preceptor  
Laboratory of Proteomics and Analytical Technology

**111 • Christina Son**  
*MHC Class II Association with Lipid Rafts*  
Duke University  
Hometown: Fairfax, VA  
Dr. Paul Roche,  
Dr. Neil Poloso, Preceptors  
Experimental Immunology Branch

**112 • Sonia Soto**  
*RT-PCR Screening of Xenograft Tumors*  
California Academy of Mathematics and Science  
Hometown: Gaithersburg, MD  
Mr. Choh Yeung,  
Dr. Chand Khanna, Preceptors  
Pediatric Oncology Branch

**113 • Natalya K. Sousa**  
*Role of MMPs in the Onset of Cancer: A Comparative Analysis of Premature Aging Syndromes*  
Saint Francis Preparatory School  
Hometown: Flushing, NY  
Dr. Paola Scaffidi,  
Dr. Tom Misteli, Preceptors  
Laboratory of Receptor Biology and Gene Expression

**114 • Amber R. Spring**  
*Activation of ATM by Stalled Hyperphosphorylated RNA Polymerase II Induced by the Topoisomerase Inhibitor Camptothecin*  
California Academy of Mathematics and Science  
Hometown: Hawthorne, CA  
Dr. Olivier Sordet, Preceptor  
Basic Research Laboratory-Bethesda

**115 • Nicholas Streicher**  
*Acquisition of Antigen Presentasomes by T Cells*  
University of Michigan  
Hometown: Bethesda, MD  
Dr. Helen Sabzevari, Preceptor  
Laboratory of Tumor Immunology and Biology

**116 • Shivani Sud**  
*TRAIL-induced Apoptosis Is Inhibited by FLIP in Neuroblastoma*  
Charles E. Jordan High School  
Hometown: Durham, NC  
Dr. Maria Tsokos, Preceptor  
Laboratory of Pathology

**117 • Lakeisha E. Summers**  
*Assessment of ADCC Activity in Rhesus Macaques Immunized with Replication Competent Adenovirus Recombinants Expressing SIV Genes*  
Claflin University  
Hometown: Hephzibah, GA  
Dr. Marjorie Robert-Guroff,  
Dr. Ruth H. Florese, Preceptors  
Vaccine Branch

**118 • Emily P. Sutton**  
*Influence of Wounding on Tumor Growth*  
Muhlenberg College  
Hometown: Loretto, PA  
Dr. Christina H. Stuelten,  
Dr. John Niederhuber; Preceptors  
Laboratory of Cell Regulation  
and Carcinogenesis

**119 • Modupe M. Teniola**  
*Schedule-dependent Radiosensitization  
of Lung Cancer Cell Lines by Hsp90  
Inhibitor, DMAG*  
University of Georgia  
Hometown: Stone Mountain, GA  
Dr. Jacek Capala,  
Dr. Lyuba Varticovski; Preceptors  
Laboratory of Human Carcinogenesis

**120 • Silpa Thaivalappil, Joseph Zakhari**  
*Hsps 27 and 70 Interact Differentially  
with BAG-3 under Induced Stress*  
Eleanor Roosevelt High School  
Wake Forest University  
Hometown: Lanham, MD  
University Park, MD  
Dr. Elise C. Kohn,  
Dr. Victoria Virador; Preceptors  
Laboratory of Pathology

**121 • John M. Thomas**  
*Natural Product Antagonist of  
Chemokine-induced Cell Migration*  
University of Dayton  
Hometown: Oregonia, OH  
Dr. O.M. Zack Howard; Preceptor  
Laboratory of Molecular  
Immunoregulation

**122 • Michael J. Torres**  
*The Role of BLM Helicase in Response  
to Replication Inhibition by Aphidicolin*  
Dallas Baptist University  
Hometown: Malakoff, TX  
Dr. Mirit Aladjem,  
Dr. Tsutomu Shimura; Preceptors  
Laboratory of Molecular Pharmacology

**123 • Nancy J. Tray**  
*Tumor-specific CD8+ T Cells Recognize  
Structural Variants of the gp100 209-217  
Melanoma-associated Epitope*  
Johns Hopkins University  
Hometown: Fairfax, VA  
Dr. Nicholas P. Restifo,  
Dr. Zhiya Yu; Preceptors  
Surgery Branch

**124 • Tuan A. Trinh**  
*Detection of Human Papillomavirus in  
Esophageal Squamous Cell Carcinoma*  
Seton Hall Preparatory School  
Hometown: Roseland, NJ  
Dr. Stephen Hewitt; Preceptor  
Laboratory of Pathology

**125 • Lillian L. Tsai**  
*The Effect of Green Tea Polyphenols  
on CPD Formation and NER Gene  
Expression Due to UVB Radiation  
in Dictyostelium discoideum*  
Winston Churchill High School  
Hometown: Potomac, MD  
Dr. Carole A. Parent,  
Dr. Alan R. Kimmel; Preceptors  
Laboratory of Cellular and  
Molecular Biology

**126 • Amara C. Unegbu-Ogbonna**  
*Localization of Proteins That Bind Early  
and Late Replicating DNA in the Nucleus*  
Cinnaminson High School  
Hometown: Cinnaminson, NJ  
Dr. Mirit Aladjem; Preceptor  
Laboratory of Molecular Pharmacology

**127 • Grant L. Verstandig**  
*IL-7 and Immune Reconstitution in  
Pediatric Patients following Allogenic  
Peripheral Blood Stem Cell Transplantation*  
Landon School  
Hometown: Washington, DC  
Dr. Terry Fry; Preceptor  
Pediatric Oncology Branch

**128 • Reena P. Vishwanath**  
*Differential Expression of Chemokine  
Receptors on Tumor Infiltrating and  
Peripheral Blood Lymphocytes*  
New Jersey Medical School  
Hometown: Washington, DC  
Dr. Mark E. Dudley; Preceptor  
Surgery Branch

**129 • Digna Washington,  
Benjamin Y. Winer**  
*Preparation and Fractionation of  
Cytotoxic Natural Products Extracts  
for High Throughput Screening  
Applications*  
University of the Virgin Islands  
College of William and Mary  
Hometown: Frederiksted, VI  
Clifton, VA  
Dr. Kirk Gustafson; Preceptor  
Molecular Targets Development  
Program

**130 • Dan E. Webster**  
*Teaching an Old Drug New Tricks:  
Asparagine Synthetase as a Predictive  
Biomarker of L-Asparaginase Activity  
in the NCI60 Cell Lines*  
University of Wisconsin  
Hometown: Madison, WI  
Dr. John N. Weinstein; Preceptor  
Laboratory of Molecular Pharmacology

**131 • Luke M. Whalen**  
*Comparison of 1-, 2-, and 3-dimensional  
MRI Response Evaluation of Plexiform  
Neurofibromas in Children with  
Neurofibromatosis Type 1 Entered  
on Clinical Trials*  
St. Mary's College of Maryland  
Hometown: Rockville, MD  
Dr. Brigitte Widemann,  
Dr. Eva Dombi; Preceptors  
Pediatric Oncology Branch

**132 •** Reginald L. Williams  
*Effects of Various Buffer-formalin Solutions in Relation to TMA*  
George Washington University  
Hometown: Germantown, MD  
Dr. Stephen Hewitt, Preceptor  
Laboratory of Pathology

**133 •** Michelle S. Wong  
*Selection of Antibodies against Small Organic Compounds by Phage Display Technology*  
Yale College  
Hometown: New Haven, CT  
Dr. Christoph Rader,  
Dr. Ka Yin Kwong, Preceptors  
Experimental Transplantation and Immunology Branch

**134 •** Yueh-Yi (Gloria) Wu  
*Nano-biochemistry: Watching Ordinary Biochemical Reactions in Real Time and with a Single Molecule Resolution Using Fluorescent Microscopy of Quantum Dots*  
Troy High School  
Hometown: Fullerton, CA  
Dr. Mikhail Kashlev,  
Dr. Lucyna Lubkowska, Preceptors  
Gene Regulation and Chromosome Biology Laboratory

**135 •** Jacqueline A. Wulu, Sydney Wang  
*Quantification and Characterization of Angiogenic Markers during Vascularization in vivo*  
Emory University  
Thomas Jefferson High School for Science and Technology  
Hometown: Mitchellville, MD  
Burke, VA  
Dr. Liliana Guedez,  
Dr. William Stetler-Stevenson, Preceptors  
Cell and Cancer Biology Branch

**136 •** Bin Q. Yang  
*The Mechanisms of High Level, Constitutive MCP-1/CCL2 Production by a Human Malignant Glioma Cell Line*  
Governor Thomas Johnson High School  
Hometown: Frederick, MD  
Dr. Teizo Yoshimura, Preceptor  
Laboratory of Molecular Immunoregulation

**137 •** Chenhui Yao  
*Expression and Characterization of the Gn and Gc Proteins of the Crimean-Congo Hemorrhagic Fever Virus*  
Manlapan High School  
Hometown: Englishtown, NJ  
Dr. Xiaodong Xiao,  
Dr. Dimiter S. Dimitrov, Preceptors  
Nanobiology Program

**138 •** Minmin Yen  
*MAP Kinase Signaling in Gadd45 alpha-deficient Mouse Dendritic Cells*  
Thomas Jefferson High School for Science and Technology  
Hometown: Herndon, VA  
Dr. Ludmila Jirmanova,  
Dr. Jonathan Ashwell, Preceptors  
Laboratory of Immune Cell Biology

**139 •** Christine K. Yu, Christine Yu  
*Thrombospondin-1 Nitric Oxide Crosstalk in the Regulation of Platelet Aggregation*  
Massachusetts Institute of Technology  
Walt Whitman High School  
Hometown: Laurel, MD  
Potomac, MD  
Dr. David D. Roberts,  
Dr. Jeffrey Isenberg, Preceptors  
Laboratory of Pathology

**140 •** Daniel J. Zabransky  
*Electron Tomography of Viruses and Cells: 3D Imaging of the AIDS Virus*  
College of William and Mary  
Hometown: Manassas, VA  
Dr. Sriram Subramaniam, Preceptor  
Laboratory of Cell Biology

**141 •** Bixi Zeng  
*The Effect of Thiolutin on Actin Polymerization and Focal Adhesion in HUVEC*  
University of Maryland  
Hometown: Bethesda, MD  
Dr. YiFeng Jia, Preceptor  
Laboratory of Pathology

## **National Cancer Institute – Division of Cancer Control and Population Sciences (NCI-DCCPS)**

**I42** • Priscilla Nez, Ashley Dixon  
*The Gall of Gallbladder Cancer and Its  
Disproportionate Effect on American  
Indian and Alaska Native Populations*  
Northern Arizona University  
Southern Illinois University  
Hometown: Flagstaff, AZ  
Lisle, IL  
Dr. Shannon Lemrow, Preceptor  
Epidemiology and Genetics  
Research Program

## National Cancer Institute – Division of Cancer Epidemiology and Genetics (NCI-DCEG)

### **143 •** Melissa A. Berg

*Longitudinal Study of Three Waldenstroms Macroglobulinemia Families*  
Pomona College  
Hometown: Claremont, CA  
Dr. Mary L. McMaster, Preceptor  
Genetic Epidemiology Branch

### **144 •** Monica L. Bertioia

*Prospective Study of Dietary and Serum Antioxidants, Fruits, and Vegetables in Relation to Renal Cell Carcinoma: The Alpha-Tocopherol, Beta-Carotene Cancer Prevention Study*  
Yale School of Public Health  
Hometown: Ithaca, NY  
Dr. Margaret E. Wright, Preceptor  
Nutritional Epidemiology Branch

### **145 •** Madeleine M. Blank

*Characteristics of the NIH-AARP Diet and Health Study Cohort*  
University of Michigan  
Hometown: Washington, DC  
Ms. Traci Mouw, Preceptor  
Nutritional Epidemiology Branch

### **146 •** Sarah L. Carman

*Dietary Intake of Antioxidants and Risk of Gastric Cancer in the AARP Study*  
University of Michigan  
Hometown: Frankenmuth, MI  
Dr. Sanford M. Dawsey,  
Dr. Farin Kamangar, Preceptors  
Nutritional Epidemiology Branch

### **147 •** John Oliver L. DeLancey

*Arsenic Exposure in Drinking Water and Bladder Cancer in New England*  
Emory University Rollins School of Public Health  
Hometown: Ann Arbor, MI  
Dr. Laura Beane-Freeman, Preceptor  
Occupational and Environmental Epidemiology Branch

### **148 •** Travis Gayles

*Serum High-density Cholesterol Levels Protective against Incident Non-Hodgkin Lymphoma in a Cohort of Male Smokers*  
University of Illinois  
Hometown: Urbana, IL  
Dr. Demetrius Albanes,  
Dr. Unhee Lim, Preceptors  
Nutritional Epidemiology Branch

### **149 •** Elizabeth Guzman-Morales

*One-carbon Metabolism and Cancers of the Colon and Rectum: A Review of the Epidemiology Literature*  
University of Puerto Rico, Mayaguez  
Hometown: Rockville, MD  
Dr. Rachael Z. Stolzenberg-Solomon,  
Dr. Stephanie Weinstein, Preceptors  
Nutritional Epidemiology Branch

### **150 •** Miriam B. Ishak

*Iodine Deficiency in Chernobyl-affected Areas of Ukraine and Belarus*  
University of Michigan  
Hometown: Sterling Heights, MI  
Dr. Maureen Hatch,  
Dr. Alina Brenner, Preceptors  
Radiation Epidemiology Branch

### **151 •** Sara Khaghani

*Immunoglobulin and Lymphocyte Subtypes in the Inherited Bone Marrow Failure Syndromes Cohort*  
University of California, Los Angeles  
Hometown: Los Angeles, CA  
Dr. Neelam Giri,  
Dr. Blanche Alter, Preceptors  
Clinical Genetics Branch

### **152 •** Anne Reiner

*Breast Cancer Incidence in CT (1940-2003)*  
Furman University  
Hometown: Marietta, GA  
Dr. Ruth Pfeiffer, Preceptor  
Biostatistics Branch

### **153 •** Victoria Sheen

*The Cancer Screening Practices of Adult Survivors of Retinoblastoma*  
University of California, San Diego School of Medicine  
Hometown: Corona Del Mar, CA  
Ms. Ruth A. Kleinerman, Preceptor  
Radiation Epidemiology Branch

### **154 •** Paul Waltz

*The Association between Melanoma, Colorectal, Breast, Ovary, NHL, and Prostate Cancer Incidence and Mortality Rates and Residential UV Dose: An Ecological Study*  
Pennsylvania State University  
Hometown: Camp Hill, PA  
Dr. Gabriel Chodick,  
Dr. Michal Freedman, Preceptors  
Radiation Epidemiology Branch

### **155 •** Michael A. Weinreich

*Birt-Hogg-Dubé Gene Mutation Detection in Familial and Sporadic Kidney Cancer*  
Cornell University  
Hometown: Poughkeepsie, NY  
Dr. Jorge Toro,  
Dr. Ousmane Toure, Preceptors  
Genetic Epidemiology Branch

## National Center for Complementary and Alternative Medicine (NCCAM)

**156 • Pui W. Cheung**

*Modulation of DHEA-induced PSA Production by Prostate Cancer Epithelial Cells in Co-culture with Normal versus Reactive Primary Prostate Stromal Cells*  
Georgetown University  
Hometown: Bethesda, MD  
Dr. Marc R. Blackman,  
Dr. Julia T. Arnold, Preceptors  
Laboratory of Clinical Investigation

**157 • Justin P. Meunier**

*Comparative Effects of Opioid versus Placebo Administration on Sex and Stress Hormones in Men with Chronic Musculoskeletal Pain*  
Louisiana State University  
School of Medicine  
Hometown: Metairie, LA  
Dr. Marc R. Blackman, Preceptor  
Laboratory of Clinical Investigation

**158 • Jennifer E. Monroe**

*Developing a Survey on the Use of Clinical Acupuncture in Cancer Patients*  
Chicago College of Osteopathic Medicine  
Hometown: Yorktown, VA  
Dr. Patrick Mansky, Preceptor  
Office of the Scientific Director  
for Clinical Research

## National Eye Institute (NEI)

**159 • Niraj K. Agarwalla**

*Role of Spermidine/Spermine Acetyltransferase in the Growth and Migration of the Pterygium*  
Duke University  
Hometown: Bethesda, MD  
Dr. Deborah Carper, Preceptor  
Molecular Therapeutics Section

**160 • Rachel Chen**

*Overexpression of C-Terminal Truncations of Pigment Epithelium-derived Factor Receptor (PEDF-R)*  
Thomas S. Wootton High School  
Hometown: Rockville, MD  
Dr. S Patricia Becerra,  
Dr. Luigi Notari, Preceptors  
Laboratory of Retinal Cell and Molecular Biology

**161 • Megan E. Conroy**

*Ocular Complications of Sarcoidosis: A Retrospective Review*  
Ohio State University  
Hometown: Gaithersburg, MD  
Dr. Grace Levy-Clarke, Preceptor  
Laboratory of Immunology

**162 • Matthew A. Cunningham**  
*Characterization and Functional Analysis of OX40L in Human Ocular Tissues*

University of Florida  
Hometown: Largo, MD  
Dr. Robert Nussenblatt,  
Dr. Zhuqing Li, Preceptors  
Laboratory of Immunology

**163 • Joseph P. Daniels**

*Inhibition of Cyclin-dependent Kinase 5 (Cdk5) Enhances E-Cadherin Degradation in Madin Darby Canine Kidney (MDCK) Epithelial Cells*  
St. John's College  
Hometown: New Bern, NC  
Dr. Peggy Zelenka,  
Dr. Senthil Saravanamuthu, Preceptors  
Laboratory of Molecular and Developmental Biology

**164 • Katie M. FitzGibbon**

*Case-control Studies on Variations of Complement Factor H (CFH) in Age-related Macular Degeneration (AMD) in Three Cohorts*  
Johns Hopkins University  
Hometown: Bethesda, MD  
Dr. Chi-Chao Chan,  
Dr. Jingsheng Tuo, Preceptors  
Laboratory of Immunology

**165 • Haley V. Holden**

*Engineering Retinal Cells to Suppress and Overexpress Pigment Epithelium-derived Factor Receptors*  
Stone Ridge School of the Sacred Heart  
Hometown: Silver Spring, MD  
Dr. S Patricia Becerra,  
Dr. Raul Heredia, Preceptors  
Laboratory of Retinal Cell and Molecular Biology

**166 • Veena K. Kutty**

*A Sex-based Comparison of the Disease Manifestations of Sjögren's Syndrome*  
Boston University  
Hometown: Bethesda, MD  
Dr. Janine Smith, Preceptor  
Division of Epidemiology and Clinical Research

**167 • Clive K. Liu**

*Localization of Membrane and Junctional Proteins in Wild Type and Crygs<sup>-/-</sup> Mouse Lens*  
Lexington High School  
Hometown: Lexington, MA  
Dr. Graeme Wistow, Preceptor  
Molecular Structure and Function Section

**168 • Tahira A. Mathen,**

Daphne Moutsoglou  
*Autoimmune and Inflammatory Loci Co-localize on Rat Chromosome 10: A Study in Chromosome-substitution Strains*  
University of Miami  
South Dakota State University  
Hometown: Boca Raton, FL  
Brookings, SD  
Dr. Mary Mattapallil,  
Dr. Rachel Caspi, Preceptors  
Laboratory of Immunology

**169 • Mohit Mehtani**

*Abnormal Retinal Vascular Development in Pax2 Mutant Mice*  
Georgetown University  
School of Medicine  
Hometown: Carmichael, CA  
Dr. Brian Brooks, Preceptor  
Ophthalmic Genetics and Clinical Services Branch

**170 • Sara Moghaddam-Taaheri**  
*High Throughput Method for PEDF Detection*

Rockville High School  
Hometown: Silver Spring, MD  
Dr. S Patricia Becerra,  
Dr. Luigi Notari, Preceptors  
Laboratory of Retinal Cell and Molecular Biology

**171 • Daphne Moutsoglou**

*Treatment of Experimental Autoimmune Uveitis in the "Humanized" HLA-Transgenic Mouse Model with Oral Anti-CD3 Antibody*  
South Dakota State University  
Hometown: Brookings, SD  
Dr. Mary Mattapallil, Preceptor  
Laboratory of Immunology

**172 • My-Le Nguyen**

*Production and Characterization of Recombinant Human PDGF $\alpha$  Protein*  
University of Maryland  
Hometown: Rockville, MD  
Dr. Xuri Li, Preceptor  
Unit of Vascular-Retinal  
Neurobiology Research

**173 • Kevin I. Rosenberg**

*Altered Ocular Expression of Endoplasmic Reticulum Proteins in CCL2/CX3CR1 Null Mice, a Mouse with Age-related Retinal Degeneration*  
University of Michigan Medical School  
Hometown: West Bloomfield, MI  
Dr. Chi-Chao Chan,  
Dr. Jingsheng Tuo, Preceptors  
Laboratory of Immunology

**174 • Dalia Saha**

*Role of CD-40L in Age-related Macular Degeneration*  
Brown Medical School  
Hometown: Bethesda, MD  
Dr. Jack Ragheb,  
Dr. James Snyder, Preceptors  
Laboratory of Immunology

**175 • Sonia Samtani, Rajeev Samtani**

*Age-related Changes in the Nuclear Heterozygote Eye: The Role of Crystallins*  
George Washington University  
St. Stephen's and St. Agnes School  
Hometown: Potomac, MD  
Potomac, MD  
Dr. J. Samuel Zigler, Preceptor  
Lens and Cataract Biology Section

**176 • Sonia Sekhar**

*Role of Stearoyl-CoA Desaturase in N-(4-hydroxyphenyl) Retinamide-induced Apoptosis in Human Retinal Pigment Epithelial Cells*  
Barnard College  
Hometown: Montgomery Village, MD  
Dr. Barbara Wiggert,  
Dr. William Samuel, Preceptors  
Laboratory of Retinal Cell and  
Molecular Biology

**177 • Di Sun**

*Localization of Pdlim2 at Rho-dependent Sites in the Cell Periphery*  
Duke University  
Hometown: Boyds, MD  
Dr. Peggy Zelenka,  
Dr. Chun Gao, Preceptors  
Laboratory of Molecular and  
Developmental Biology

**178 • Suzanne H. Westbrook**  
*Sensitizing Human ARPE-19 Cells to TNF-alpha-mediated Cell Death via KN-93 Down-regulation of c-FLIP Activity*  
Princeton University  
Hometown: Great Falls, VA  
Dr. Congxiao Zhang,  
Dr. Karl Csaky, Preceptors  
Section on Retinal Diseases  
and Therapeutics

## National Heart, Lung, and Blood Institute (NHLBI)

**179 • Sydney Chang**

*A Cysteine Scan of the Outer Mouth of Cystic Fibrosis Transmembrane Conductance Regulator*  
Stanford University  
Hometown: Potomac, MD  
Dr. Viswanathan Raghuram, Preceptor  
Laboratory of Kidney and Electrolyte Metabolism

**180 • Christopher F. Chesley**  
*Measuring Blood and Tissue Levels in Murine Models of Ischemia-Reperfusion*  
Gaithersburg High School  
Hometown: Gaithersburg, MD  
Dr. Mark T. Gladwin, Preceptor  
Vascular Medicine Branch

**181 • Alan Cole**  
*DUSP6 Gene Inactivation in Mice*  
St. Albans School  
Hometown: Bethesda, MD  
Dr. Warren J. Leonard,  
Dr. Jerome Bernard, Preceptors  
Laboratory of Molecular Immunology

**182 • Natasha L. Coleman**  
*Protein Expression in Subsarcolemmal and Interfibrillar Mitochondria*  
Montgomery Blair High School  
Hometown: Bethesda, MD  
Dr. Stefanie Carroll, Preceptor  
Laboratory of Cardiac Energetics

**183 • Carl M. DiCasoli**  
*Model Fitting and Inference of the Yang-Prentice Time-varying Treatment Effect Model with Applications to the Digitalis Study*  
North Carolina State University  
Hometown: Raleigh, NC  
Dr. Song Yang, Preceptor  
Office of Biostatistics Research

**184 • Nicholas L. Evoy**  
*Engineering a Device for MR Imaging of the Quadricep*  
Johns Hopkins University  
Hometown: Bethesda, MD  
Dr. Elliot M. McVeigh, Preceptor  
Laboratory of Cardiac Energetics

**185 • Jerad A. Fields**  
*p53 Regulation of Aerobic Function and Cytochrome c Oxidase*  
University of Central Oklahoma  
Hometown: Oklahoma City, OK  
Dr. Paul Hwang, Preceptor  
Cardiovascular Branch

**186 • Allison R. Finger**  
*Real-time Imaging of Dorsal Root Ganglia Growth Cone Response to Chondroitin Sulfate Proteoglycans*  
North Carolina State University  
Hometown: Garner, NC  
Dr. Herbert M. Geller, Preceptor  
Developmental Neurobiology Section

**187 • Vanessa J. Flores**  
*Cyanide Inhibits Tissue-dependent Metabolism of Nitrite*  
Rutgers University  
Hometown: Elizabeth, NJ  
Dr. Mark T. Gladwin,  
Dr. Sruti Shiva, Preceptors  
Vascular Medicine Branch

**188 • Matthew L. Goldman**  
*Interleukin 21 Induces Expression of B Lymphocyte-induced Maturation Protein 1 in T Cells*  
Pomona College  
Hometown: San Francisco, CA  
Dr. Warren J. Leonard,  
Dr. Hyok Kwon, Preceptors  
Laboratory of Molecular Immunology

**189 • Gelareh Homayounfar**  
*The Role of Nonmuscle Myosin II in the Proliferation of Cardiac Myocytes*  
Duke University  
Hometown: Bethesda, MD  
Dr. Robert Adelstein,  
Dr. Xuefei Ma, Preceptors  
Laboratory of Molecular Cardiology

**190 • Charles W. Hwang**  
*Analysis and Visualization of Protein Dynamics Using the Elastic Network Model*  
Winter Park High School  
Hometown: Orlando, FL  
Dr. Bernard Brooks,  
Dr. Wenjun Zheng, Preceptors  
Laboratory of Computational Biology

**191 • Christopher L. Kalmar**  
*The Role of pH Gradient in Driving Phosphate Transport across Mitochondrial Membrane under Physiological Conditions*  
Gonzaga College High School  
Hometown: Germantown, MD  
Dr. Robert S. Balaban,  
Ms. Stephanie A. French, Preceptors  
Laboratory of Cardiac Energetics

**192 • Sarah M. Karl**  
*Prognostic Factors for Patients with Malignant Restenosis in the CardioGene Study*  
Central Michigan University  
Hometown: St. Louis, MI  
Dr. Nancy Geller, Preceptor  
Office of Biostatistics Research

**193 • Alexis R. Karlin**  
*Cardiovascular Response to Mental Stress Is Modulated by Serotonergic and Adrenergic Polymorphisms*  
National Cathedral School  
Hometown: Great Falls, VA  
Dr. Peter Kaufmann, Preceptor  
Clinical Applications and Prevention Program

**194** • Kwame S. Kутten  
*Contour Guidance Is Necessary for Phase Unwrapping of Displacement Encoded MR Imaging of Myocardial Function*  
Rensselaer Polytechnic Institute  
Hometown: Montgomery Village, MD  
Dr. Han Wen, Preceptor  
Laboratory of Cardiac Energetics

**195** • Yaojiefu J. Li  
*Replacing Nonmuscle Myosin II-A with Nonmuscle Myosin II-B by Homologous Recombination*  
University of Maryland  
Hometown: Gaithersburg, MD  
Dr. Aibing Wang, Preceptor  
Laboratory of Molecular Cardiology

**196** • David B. Lipps  
*Anatomically Guided Spatial Filters in Displacement Encoded MR Imaging of the Heart*  
Tulane University  
Hometown: Arlington Heights, IL  
Dr. Han Wen, Preceptor  
Laboratory of Cardiac Energetics

**197** • Geoffrey A. Lovely  
*The Systematic Characterization of High-titer Sf9-produced rAAV Serotypes*  
University of California, Davis  
Hometown: San Jose, CA  
Dr. Robert M. Kotin,  
Dr. Lina Li, Preceptors  
Laboratory of Biochemical Genetics

**198** • Keith Marsolo  
*Quantitative Analysis of Contractile Akinesia and Asynchrony in Myocardial Function*  
Ohio State University  
Hometown: Westerville, OH  
Dr. Han Wen, Preceptor  
Laboratory of Cardiac Energetics

**199** • Elizabeth E. McGinn  
*Characterization of Gene Expression in Syndecan-3-deficient Zebrafish Embryos*  
Catholic University of America  
Hometown: Kingsport, TN  
Dr. Kenneth L. Kramer, Preceptor  
Laboratory of Development Biology

**200** • Drew McUsic  
*Cardiac MRI: Preliminary Results of a New T2-Weighted Technique for Imaging Myocardial Edema*  
Rice University  
Hometown: Tulsa, OK  
Dr. Andrew E. Arai,  
Dr. Anthony Aletras, Preceptors  
Laboratory of Cardiac Energetics

**201** • Chinedu Mmeje  
*Mitochondrial Stress-induced Regulation of Uncoupling Proteins*  
UMDNJ – Robert Wood Johnson Medical School  
Hometown: Carson, CA  
Dr. Michael N. Sack, Preceptor  
Cardiovascular Branch

**202** • Steven E. Ovu  
*ENaCs in Urinary Exosomes*  
Prairie View A&M University  
Hometown: Houston, TX  
Dr. Mark Knepper,  
Ms. Patricia A. Gonzales, Preceptors  
Laboratory of Kidney and Electrolyte Metabolism

**203** • Yang Pan  
*Metabolic Syndrome in U.S. Adolescents and Its Association with Diet and Physical Activity*  
University of Maryland  
Hometown: Greenbelt, MD  
Dr. Charlotte Pratt,  
Dr. Nancy Geller, Preceptors  
Clinical Applications and Prevention Program

**204** • Yuval Pinto  
*Designing a Construct with a Point Mutation in NMHCII-A*  
University of the District of Columbia  
Hometown: Kensington, MD  
Dr. Robert Adelstein,  
Dr. Yelena Shmist, Preceptors  
Laboratory of Molecular Cardiology

**205** • Sara G. Sadiq-Ali  
*Regulation of Tribbles 3 (TRB3) by Modulation of Mitochondrial Function*  
South Lakes High School  
Hometown: Reston, VA  
Dr. Michael N. Sack, Preceptor  
Cardiovascular Branch

**206** • Zalya Sanchez-Galvan  
*Analysis of Differential Sulfation of Chondroitin Sulfate*  
University of California, Los Angeles  
Hometown: Los Angeles, CA  
Dr. Herbert M. Geller, Preceptor  
Developmental Neurobiology Section

**207** • Daniel R. Selvig  
*Purification and Characterization of the ClpP Protease from Bacillus subtilis*  
University of Oregon  
Hometown: Missoula, MT  
Dr. Ann Ginsburg,  
Dr. Michael R. Maurizi, Preceptors  
Laboratory of Biochemistry

**208** • Rishi P. Singh  
*A Web-based Computational Biology Tool*  
Hayfield Secondary School  
Hometown: Fairfax Station, VA  
Dr. Xiongwu Wu,  
Dr. Bernard Brooks, Preceptors  
Laboratory of Computational Biology

**209 •** Ginger C. Slack  
*Measuring Ventricular Septal Defects during MRI-Guided Interventions*  
University of Southern California  
Hometown: McLean, VA  
Dr. Robert J. Lederman, Preceptor  
Cardiovascular Branch

**210 •** Edgardo Sosa  
*Analysis of Cytotoxic T Cell Responses against a Novel CML-specific Antigen*  
State University of New York  
University at Albany  
Hometown: Yonkers, NY  
Dr. Austin J. Barrett,  
Dr. Jan J. Melenhorst, Preceptors  
Hematology Branch

**211 •** Jacob Spinner  
*PLTP Over-expression in Mice as an Adjuvant to HDL Therapy for Atheroprotection*  
Duke University  
Hometown: Bethesda, MD  
Dr. Marcelo Amar, Preceptor  
Vascular Medicine Branch

**212 •** Jacqueline Stroncek  
*Paradoxical Proteomics: A Study of Plasma Protein Changes Associated with Neutrophil Decline and Stem Cell Mobilization following Administration of Granulocyte Colony Stimulating Factor*  
Cornell University  
Hometown: Rockville, MD  
Dr. Robert Donahue, Preceptor  
Hematology Branch

**213 •** Kevin S. Tang  
*Time-resolved Anisotropy and Fluorescence Lifetimes Used to Determine NADH Binding in Cells*  
Rutgers University  
Hometown: Bethesda, MD  
Dr. Jay Knutson,  
Dr. Aleksandr Smirnov, Preceptors  
Laboratory of Biophysical Chemistry

**214 •** Dmitry Tchapyjnikov  
*A Java-based Algorithm for Annotation of Proteomic Data Sets*  
Emory University  
Hometown: Silver Spring, MD  
Dr. Mark Knepper, Preceptor  
Laboratory of Kidney and Electrolyte Metabolism

**215 •** Elena Tous  
*Confocal Imaging of Intracellular Calcium Oscillations in Collecting Duct Cells*  
University of Maryland  
Hometown: East Windsor, NJ  
Dr. Mark Knepper,  
Mr. Stephen Schleicher, Preceptors  
Laboratory of Kidney and Electrolyte Metabolism

**216 •** Noah A. Wolfson  
*Yeast Fis1's Interaction with Mdv1 and Its Effect on the Mitochondria*  
Brandeis University  
Hometown: Chevy Chase, MD  
Dr. Nico Tjandra, Preceptor  
Laboratory of Biochemistry

## National Human Genome Research Institute (NHGRI)

**217 •** Melis N. Anahtar

*Molecular Analysis of Patients with Hypopigmentation and Other Hermansky-Pudlak Syndrome-like Clinical Features*  
Massachusetts Institute of Technology  
Hometown: Bethesda, MD  
Dr. Marjan Huizing, Preceptor  
Medical Genetics Branch

**218 •** Anthony J. Burnett

*Analysis of Gata1 Mutations in Danio rario*  
Montgomery Blair High School  
Hometown: Derwood, MD  
Dr. Paul Liu,  
Dr. Raman Sood, Preceptors  
Genetics and Molecular Biology Branch

**219 •** Hway Helen Chen

*Characterization of a Naturally Occurring Modifier of the Runx2 +/- Phenotype*  
Montgomery Blair High School  
Hometown: Potomac, MD  
Dr. Kate Hyde,  
Dr. Paul Liu, Preceptors  
Genetics and Molecular Biology Branch

**220 •** Afrin R. Chowdhury

*Developing Real-time PCR for Quantitation of Human Genomic Samples*  
University of Maryland  
Hometown: New Carrollton, MD  
Dr. Laura Elnitski, Preceptor  
Genome Technology Branch

**221 •** Emily Devlin

*Development of an Animal Model for Diamond Blackfan Anemia*  
Colby College  
Hometown: Pennington, NJ  
Dr. David Bodine, Preceptor  
Genetics and Molecular Biology Branch

**222 •** Janice E. Dorbu

*Retroviral Vectors for Expression of Itk Mutants and shRNA*  
Emory University  
Hometown: Montgomery Village, MD  
Dr. Pamela Schwartzberg, Preceptor  
Genetic Disease Research Branch

**223 •** Ian P. Dusenberry

*Association Analysis of Prostate Cancer to Polymorphisms in the ARLTS1 Locus*  
George Washington University  
Hometown: McLean, VA  
Dr. Joan Bailey-Wilson, Preceptor  
Inherited Disease Research Branch

**224 •** Faith E. Fletcher

*Exploring Minority Populations' Willingness to Participate in Genetics Research*  
Michigan State University  
Hometown: Bethesda, MD  
Mr. Vence Bonham,  
Ms. Adebola Odunlami, Preceptors  
Social and Behavioral Research Branch

**225 •** Emily M. Gottlieb

*Molecular Analysis of the 17p11.2 Deletion in Smith-Magenis Syndrome*  
Philadelphia College of Osteopathic Medicine  
Hometown: Washington, DC  
Dr. Marjan Huizing,  
Dr. Ann Smith, Preceptors  
Medical Genetics Branch

**226 •** Gi'Eira S. Jones

*Development of New Gene Transfer Vector for Gene Therapy of Wiskott-Aldrich Syndrome*  
Elizabeth City State University  
Hometown: Philadelphia, PA  
Dr. Fabio Candotti,  
Dr. Alfred C. Johnson, Preceptors  
Genetics and Molecular Biology Branch

**227 •** Natalia R. Kuhn

*Using the CEGRM to Measure Social Support Networks of Sisters in HBOC Families*  
Texas A&M University Health Science Center  
School of Rural Public Health  
Hometown: Bryan, TX  
Dr. Laura M. Koehly, Preceptor  
Social and Behavioral Research Branch

**228 •** Maya Tuchman

*A Novel Mutation in the RAB27A Gene Causing Griscelli Syndrome*  
University of Maryland  
Hometown: Bethesda, MD  
Dr. Robert Kleta, Preceptor  
Medical Genetics Branch

**229 •** Katherine Zhang

*Stepping Stone: Mouse Neural Crest Mutant Identified in a Sensitized ENU Mutagenesis Screen*  
Columbia University  
Hometown: Gaithersburg, MD  
Dr. Bill Pavan, Preceptor  
Genetic Disease Research Branch

**230 •** John C. Zhou

*Association Analysis of Breast Cancer to Polymorphisms in the ARLTS1 Locus*  
Detroit Country Day School  
Hometown: Northville, MI  
Dr. Joan Bailey-Wilson, Preceptor  
Inherited Disease Research Branch

## National Institute of Allergy and Infectious Diseases (NIAID)

- 231** • Vinay K. Aggarwal  
*Comparing Effect of and Response to Interleukin-2 Cytokine Administration in HIV-infected Patients*  
Boston University  
Hometown: Cabin John, MD  
Dr. Irini Sereti,  
Dr. Clifford Lane, Preceptors  
Laboratory of Immunoregulation
- 232** • Kimbia L. Arno  
*Expression and Function of Rgs13 in Mast Cells*  
duPont Manual High School  
Hometown: Gaithersburg, MD  
Dr. Geetanjali Bansal,  
Dr. Kirk M. Druey, Preceptors  
Laboratory of Allergic Diseases
- 233** • Rebecca S. Barrett  
*Over-expression of TLR7 Increases Susceptibility to Systemic Lupus Erythematosus*  
Washington and Jefferson College  
Hometown: Greensburg, PA  
Dr. Silvia Bolland,  
Dr. Jonathan A. Deane, Preceptors  
Laboratory of Immunogenetics
- 234** • Yun-Yun K. Chen  
*Studies on the Orphan Chemokine CXCL14*  
Thomas S. Wootton High School  
Hometown: Bethesda, MD  
Dr. Joshua M. Farber,  
Dr. Merav Darash-Yahana, Preceptors  
Laboratory of Molecular Immunology
- 235** • Daniel Chien  
*Live Microfilariae of Brugia malayi Induce Apoptosis in Human Dendritic Cells through a TNF- and TRAIL-dependent Mechanism and Promote the Development of Regulatory T Cells*  
University of California, Los Angeles  
Hometown: Danville, CA  
Dr. Roshanak Semnani, Preceptor  
Laboratory of Parasitic Diseases
- 236** • Caelin A. Cubenas  
*Do Dendritic Cells Need Help to Secrete IL-12 p75?*  
University of Georgia  
Hometown: Roswell, GA  
Dr. Polly Matzinger,  
Dr. Kaveh Abdi, Preceptors  
Laboratory of Cellular and Molecular Immunology
- 237** • Jennifer DiMuro  
*Studying the Molecular Basis of Restriction in Re-assortment among Rotavirus Strains*  
Rochester Institute of Technology  
Hometown: Kanona, NY  
Dr. Zenobia Taraporewala, Preceptor  
Laboratory of Infectious Diseases
- 238** • Amanda K. Gibson  
*Role of Mannose-binding Lectin in Trypanosoma cruzi Infection*  
Amherst College  
Hometown: McLean, VA  
Dr. Andre Bafica, Preceptor  
Laboratory of Parasitic Diseases
- 239** • Hope E. Hamrick  
*World of Herpes: Differences in HSV-2 Prevalence*  
Johns Hopkins Bloomberg School of Public Health  
Hometown: Baltimore, MD  
Dr. Thomas C. Quinn,  
Mr. Oliver Laeyendecker, Preceptors  
Laboratory of Immunoregulation
- 240** • Linda Huynh  
*Functional Analysis of Mouse Chemokine Receptor CCR1 Homolog, CCR1-L1*  
University of Maryland,  
Baltimore County  
Hometown: Beltsville, MD  
Dr. Jiliang Gao,  
Dr. Philip M. Murphy, Preceptors  
Laboratory of Molecular Immunology
- 241** • Bing Jiang  
*Febrile Temperature-induced Changes in the Ubiquitin Pathway in the Plasmodium falciparum Malaria Parasite*  
Mount Hebron High School  
Hometown: Rockville, MD  
Dr. Thomas F. McCutchan, Preceptor  
Laboratory of Malaria and Vector Research
- 242** • Courtney S. Kiphart  
*Expression of a "Secretory Nuclease" in Leishmania tarentolae*  
St. Mary's College of Maryland  
Hometown: Sykesville, MD  
Dr. Manju B. Joshi,  
Dr. Dennis M. Dwyer, Preceptors  
Laboratory of Parasitic Diseases
- 243** • Randolph Li  
*Sequence Analysis of Host Range Variants of Moloney Murine Leukemia Virus*  
Massachusetts Institute of Technology  
Hometown: North Potomac, MD  
Dr. Christine Kozak, Preceptor  
Laboratory of Molecular Microbiology
- 244** • Christine Louie  
*The Role of CCL5/RANTES in West Nile Virus Infection in Mouse and Man*  
University of Pennsylvania School of Medicine  
Hometown: Goshen, NY  
Dr. Philip M. Murphy,  
Dr. Jean Lim, Preceptors  
Laboratory of Molecular Immunology
- 245** • Jessica G. Lue  
*Transcript Analysis of Alternatively Activated Bone Marrow-derived Macrophages following Conditional Deletion of Arginase 1*  
Wheaton College  
Hometown: Germantown, MD  
Dr. John Pesce,  
Dr. Thomas Wynn, Preceptors  
Laboratory of Parasitic Diseases

- 246** • Angel N. Morrow  
*Antiproliferative Activity of Interferon-alpha Constructs on Human Cell Lines*  
Arizona State University  
Hometown: Phoenix, AZ  
Dr. Kathryn Zoon, Preceptor  
Molecular and Cellular  
Immunogenetics Section
- 247** • Felix Moser  
*The Role of Evolution in Cellular Recognition of Unfolded Proteins*  
Cornell University  
Hometown: Wichita Falls, TX  
Dr. Jon Yewdell, Preceptor  
Laboratory of Viral Diseases
- 248** • Oluwadamilola T. Oladeru  
*Specific CD8 T Cell Cytotoxic Reaction to RFP-modified E.G7-OVA Cells in the OT-I Mouse*  
Peddie School  
Hometown: Bronx, NY  
Dr. Sharon H. Jackson,  
Dr. Meghan Jendrysik, Preceptors  
Laboratory of Host Defenses
- 249** • Sarah J. Omenitsch  
*Delineation of the Mechanism by which HIV Persists in Infected Individuals Receiving Effective Antiviral Therapy*  
Stone Ridge School of the Sacred Heart  
Hometown: Bethesda, MD  
Dr. Tae-Wook Chun, Preceptor  
Laboratory of Immunoregulation
- 250** • Jonathan D. Pool  
*Regulation of Type I IFN Production*  
Georgetown Preparatory  
Hometown: Montgomery Village, MD  
Ms. Nikky Contractor,  
Dr. Brian Kelsall, Preceptors  
Laboratory of Molecular Immunology
- 251** • Victor G. Prikhodko  
*Genetic Characterization of Feline Calicivirus Strains Isolated in Missouri in 1995-96*  
University of Maryland  
Hometown: Gaithersburg, MD  
Dr. Stanislav Sosnovtsev, Preceptor  
Laboratory of Infectious Diseases
- 252** • Nina Ren  
*Is There a Link between Nuclear Factor-kappa B and Diabetes Type 2?*  
Richard Montgomery High School  
Hometown: North Potomac, MD  
Dr. Ulrich Siebenlist,  
Dr. Hongshan Wang, Preceptors  
Laboratory of Immunoregulation
- 253** • Steven J. Siegel  
*Rodents in a Mammalian World: Evolution and Function of Squirrel Ribonucleases*  
Yale College  
Hometown: Potomac, MD  
Dr. Helene F. Rosenberg, Preceptor  
Laboratory of Allergic Diseases
- 254** • Rajat Singh  
*Study of Anthrax Toxins by Knockout Mutant Strains*  
Delhi University  
Hometown: Rockville, MD  
Dr. Stephen H. Leppla,  
Dr. Zonglin Hu, Preceptors  
Bacterial Toxins and Therapeutics Section.
- 255** • Daniel Suzman  
*Prediction of Liver Fibrosis from Non-invasive Markers in HIV/HCV and HIV/HBV Coinfected Patients*  
University of Maryland  
School of Medicine  
Hometown: Chevy Chase, MD  
Dr. Shyamasundaran Kottlil, Preceptor  
Laboratory of Immunoregulation
- 256** • Joanna K. Timmer  
*PD-1 and PD-L1, B7 Family Molecules That Suppress T Cell Activation, Are Up-regulated on T Cells and Monocytes by Cytokines Associated with Homeostatic Expansion and Inflammation*  
Stone Ridge School of the Sacred Heart  
Hometown: North Bethesda, MD  
Dr. Audrey Kinter,  
Mr. Jonathan McNally, Preceptors  
Laboratory of Immunoregulation
- 257** • Youkuan Yan  
*HIV-associated Immune Activation Preferentially Up-regulates Interferon-inducible Genes in HCV Coinfected Patients*  
Duke University  
Hometown: Rockville, MD  
Dr. Shyamasundaran Kottlil, Preceptor  
Laboratory of Immunoregulation
- 258** • Laura Zaim  
*Novel Mutations in IL-12 RB1*  
Walt Whitman High School  
Hometown: Potomac, MD  
Dr. Steven Holland,  
Dr. Houda Elloumi, Preceptors  
Laboratory of Clinical Infectious Diseases
- 259** • Victor Z. Zhu  
*An Analysis of Avian Malaria in African Black Footed Penguins*  
Thomas Jefferson High School for Science and Technology  
Hometown: Arlington, VA  
Dr. Thomas F. McCutchan,  
Ms. Margery Sullivan, Preceptors  
Laboratory of Malaria and Vector Research
- 260** • Wenjia Zhu  
*Oxidized LDL and Its Derivatives Regulate Expression of the Chemokine CXCL16 and Its Chemokine Receptor CXCR6*  
Montgomery Blair High School  
Hometown: Bethesda, MD  
Dr. Philip M. Murphy,  
Dr. Jana Barlic, Preceptors  
Laboratory of Molecular Immunology

## National Institute of Allergy and Infectious Diseases – Vaccine Research Center (NIAID-VRC)

**261** • Ethan R. Bornstein  
*Non-pathogenic SIV Infection Is Characterized by an Absence of a Microbial Translocation*  
University of Michigan  
Hometown: Bethesda, MD  
Dr. Daniel Douek,  
Dr. Jason Brechley, Preceptors  
Human Immunology Section

**262** • Kizzmekia S. Corbett  
*The Effects of Respiratory Syncytial Virus Infection on Dendritic Cell Maturation by Toll-like Receptor Agonists*  
University of Maryland,  
Baltimore County  
Hometown: Hillsborough, NC  
Dr. Barney Graham,  
Dr. Teresa Johnson, Preceptors  
Viral Pathogenesis Laboratory

**263** • Sean T. DeGrande  
*Functional Characterization of Antibodies Induced by rAd Ebola Vaccine*  
Illinois Wesleyan University  
Hometown: Schaumburg, IL  
Dr. Nancy J. Sullivan, Preceptor  
Biodefense Research Section

**264** • Marcda E. Hilaire  
*Antigenic Analysis of HIV-1 Envelope Glycoprotein Functional Trimer*  
Suncoast Community High School  
Hometown: West Palm Beach, FL  
Dr. Yuxing Li,  
Dr. Richard Wyatt, Preceptors  
Structural Virology Laboratory

**265** • Ian M. MacDougall  
*Towards a COMMD Structure*  
University of Virginia  
Hometown: Arlington, VA  
Dr. Gary J. Nabel, Preceptor  
Laboratory of Virology

**266** • Jessica Maglione  
*Understanding Neutralizing Antibody Specificity in HIV-1 Sera Using Solid Phase Adsorption*  
Georgetown University  
Hometown: Boston, MA  
Dr. John R. Mascola, Preceptor  
BSL-3 Core Virology Laboratory

**267** • Lidénys C. Varela  
*Measuring Ebola Glycoprotein Antibody Responses in Nonhuman Primates Using Enzyme-linked Immunosorbent Assay (ELISA)*  
Johns Hopkins University  
Hometown: Silver Spring, MD  
Dr. Nancy J. Sullivan, Preceptor  
Biodefense Research Section

**268** • Danyi Wu  
*Development of Transient Expression of HIV-1 Envelope Protein in Mammalian Suspension Cells*  
Thomas Jefferson High School  
for Science and Technology  
Hometown: Vienna, VA  
Dr. Eric Shen, Preceptor  
Vaccine Production Program

## National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

**269** • Douglas J. Adams  
*Developing a Web Interface for Distributed Image Processing in Electron Microscopy*

Massachusetts Institute of Technology  
Hometown: Potomac, MD  
Dr. Bernard Heymann, Preceptor  
Laboratory of Structural Biology Research

**270** • Sarah Bettigole  
*Lentiviral shRNA-mediated Suppression of Rac1 and Its Effects on Restimulation-induced Cell Death in T Cells*

Tufts University  
Hometown: Bethesda, MD  
Dr. Richard Siegel,  
Dr. Madhu Ramaswamy, Preceptors  
Autoimmunity Branch

**271** • Carolyn Black  
*Expression, Purification, and Crystallization of the Human Transglutaminase 3-Calpain Complex*

University of Maryland,  
Baltimore County  
Hometown: Canton, OH  
Dr. Bijan Ahvazi,  
Dr. Karen Boeshans, Preceptors  
X-Ray Crystallography Facility

**272** • Charlotte Y. Chung  
*Biomimetic Bone Powder-Nanofiber Composites for Bone Tissue Engineering*

Johns Hopkins University  
Hometown: Baltimore, MD  
Dr. Rocky S. Tuan,  
Dr. Wan-Ju Li, Preceptors  
Cartilage Biology and Orthopaedics Branch

**273** • Laura Ciaccia  
*Molecular Approach to the Characterization of Sphingosine Kinases and Sphingosine 1-phosphate Receptors in Mast Cells*

Boston University  
Hometown: Washington, DC  
Dr. Juan Rivera,  
Dr. Ana Olivera, Preceptors  
Molecular Immunology and Inflammation Branch

**274** • Michelle C. Eckman  
*Endothelial Cell Modulation of Chondrocyte Growth*

Georgia Institute of Technology  
Hometown: Severn, MD  
Dr. Juan M. Taboas,  
Dr. Rocky S. Tuan, Preceptors  
Cartilage Biology and Orthopaedics Branch

**275** • Jennifer L. Jacobi  
*The Role of HDACs in MMP Expression in Articular Cartilage*

University of Missouri Rolla  
Hometown: St. Charles, MO  
Dr. Xibin Wang, Preceptor  
Cartilage Biology and Orthopaedics Branch

**276** • Kevin S. Jenner  
*Extending the Resolution Limit in Cryo-electron Tomography by Correcting for the Contrast Transfer Function*

University of Iowa  
Hometown: Naperville, IL  
Dr. Giovanni Cardone, Preceptor  
Laboratory of Structural Biology Research

**277** • Rachele La Porte Bogle  
*Cells under Shear: Engineering a Compression Cell*  
Wayne State University  
Hometown: Madison Heights, MI  
Mr. Gary Melvin, Preceptor  
Office of Science and Technology,  
Engineering and Instrumentation Unit

**278** • Annie M. Le  
*The Effects of Microtubules and Intermediate Filaments on Human Mesenchymal Stem Cell Chondrogenesis*

University of Rochester  
Hometown: Rochester, NY  
Dr. Rocky S. Tuan,  
Dr. Faye H. Chen, Preceptors  
Cartilage Biology and Orthopaedics Branch

**279** • Natalie L. Leong  
*Effect of Cartilage Oligomeric Matrix Protein on Matrix Organization of Mesenchymal Stem Cells Undergoing Chondrogenesis*

Columbia University School of Engineering and Applied Sciences  
Hometown: Matawan, NJ  
Dr. Rocky S. Tuan,  
Dr. Faye H. Chen, Preceptors  
Cartilage Biology and Orthopaedics Branch

**280** • Brittney A. Manvella  
*Electron Microscopy of Influenza Ribonucleoprotein Complexes*

University of Maryland  
Hometown: Finksburg, MD  
Dr. Audray K. Harris, Preceptor  
Laboratory of Structural Biology Research

**281** • John E. McManigle  
*Granulocyte Chemotaxis in Familial Mediterranean Fever Patients Undergoing Structured Treatment*

*Interruption of Colchicine*  
Pennsylvania State University  
Schreyer Honors College  
Hometown: Rockville, MD  
Dr. Nona T. Colburn,  
Dr. Daniel L. Kastner, Preceptors  
Genetics and Genomics Branch

**282** • Andrew D. Nicholson  
*High-resolution MRI and CT in the Determination of Articular Cartilage Volume in Age-related Osteoarthritis (A Non-human Primate Model)*  
Georgetown University  
School of Medicine  
Hometown: Jacksonville, FL  
Dr. Joy Blair, Preceptor  
Office of the Clinical Director

**283** • Matt M. Niemeyer  
*A Biomimetic Nanofibrous Scaffold Based on Collagen Type II for Tissue-engineering of Articular Cartilage*  
University of Michigan  
Hometown: Saint Louis, MO  
Dr. Lars Rackwitz, Preceptor  
Cartilage Biology and  
Orthopaedics Branch

**284** • Sarah K. Nutman  
*IL-17 in Neonatal Onset Multisystem Inflammatory Disease (NOMID)*  
Georgetown Day High School  
Hometown: Chevy Chase, MD  
Ms. Tuyet-Hang T. Pham,  
Dr. Raphaela Goldbach-Mansky, Preceptors  
Office of the Clinical Director

**285** • Bode Ogunwale  
*Bacteriophage T7 Morphogenesis: Probing Conformational Changes via Epitope Labeled Capsids*  
Harvard College  
Hometown: Millersville, MD  
Dr. Mario Cerritelli, Preceptor  
Laboratory of Structural  
Biology Research

**286** • Obehi Okojie  
*In Search of the Ideal Biomarker for Osteoarthritis in a Non-human Primate Model*  
University of Maryland Eastern Shore  
Hometown: Upper Marlboro, MD  
Dr. Joy Blair, Preceptor  
Office of the Clinical Director

**287** • Nicholas J. Siebenlist  
*Reciprocal Regulation of Signature Cytokine Locus during T Helper Cell Differentiation*  
Quince Orchard High School  
Hometown: Gaithersburg, MD  
Dr. John J. O'Shea, Preceptor  
Molecular Immunology and  
Inflammation Branch

**288** • Jaskaran Singh  
*Expression, Purification, and Crystallization of the Human Farnesoid X Receptor (FXR)-Z-Guggulsterone Complex*  
Richard Montgomery High School  
Hometown: Rockville, MD  
Dr. Bijan Ahvazi,  
Dr. Karen Boeshans, Preceptors  
X-Ray Crystallography Facility

**289** • Benjamin J. Sobel  
*Conformational Changes and Mode of Interaction of Human Transglutaminase 3 Inhibitor from the X-ray Crystal Structure*  
Walt Whitman High School  
Hometown: Bethesda, MD  
Dr. Bijan Ahvazi,  
Dr. Karen Boeshans, Preceptors  
X-Ray Crystallography Facility

**290** • Ben D. Solomon  
*Cytokine Regulation of CocoaCrisp: A New Th1 Cytokine?*  
Cornell University  
Hometown: Rockville, MD  
Dr. John J. O'Shea, Preceptor  
Molecular Immunology and  
Inflammation Branch

**291** • Jeff Stambough  
*The Effect of Canonical and Non-canonical Wnts on Chondrogenesis of Human Mesenchymal Stem Cells*  
Cornell University  
Hometown: Cincinnati, OH  
Dr. Hana Smith, Preceptor  
Cartilage Biology and  
Orthopaedics Branch

**292** • Janay C. Sullivan  
*Vitamin D Deficiency in Lupus*  
Old Dominion University  
Hometown: Silver Spring, MD  
Dr. Christopher Collins,  
Dr. Gregory Dennis, Preceptors  
Arthritis and Rheumatism Branch

**293** • Niket Todi  
*Using Real-time Quantitative PCR to Determine Gene Copy Number*  
Thomas Jefferson High School  
for Science and Technology  
Hometown: Dunn Loring, VA  
Dr. Richard Siegel,  
Ms. Melissa A. Porter, Preceptors  
Autoimmunity Branch

**294** • Joanna Tsai  
*Optimization of Data Acquisition Parameters for Cryo-electron Tomography*  
University of Maryland  
Hometown: Gaithersburg, MD  
Dr. Dennis Winkler, Preceptor  
Laboratory of Structural  
Biology Research

**295** • Isabela T. Wiczorek  
*TRAPS-associated Mutant TNFR1 May Alter ER Stress Signaling*  
Cornell University  
Hometown: Potomac, MD  
Dr. Richard Siegel, Preceptor  
Autoimmunity Branch

## National Institute of Biomedical Imaging and Bioengineering (NIBIB)

**296** • Kathleen E. Knudson  
*Asymmetric Radiochemical Synthesis  
of the R and S Enantiomers  
of FPMPA*  
Oberlin College  
Hometown: Greenville, NC  
Dr. Dale O. Kiesewetter; Preceptor  
Positron Emission Tomography  
Radiochemistry Group

## National Institute of Child Health and Human Development (NICHD)

- 297** • Benjamin M. Aakre  
*Investigation of Matrix Metalloproteins in Human Gestational Tissues*  
Concordia College  
Hometown: Detroit, MI  
Dr. Roberto Romero,  
Dr. Samuel S. Edwin, Preceptor  
Perinatology Research Branch
- 298** • Chidi Ahaghotu  
*Genotyping of Transgenic Mice for the Neuroglia Specific YC3.60 Chameleon Gene*  
Springbrook High School  
Hometown: Silver Spring, MD  
Dr. James Russell, Preceptor  
Section on Cell Biology and Signal Transduction
- 299** • Daniel Ahmad  
*Isolation of Mutants That Suppress a U47:6 tRNA Maturation Defect in S. pombe*  
University of Maryland  
Hometown: Gaithersburg, MD  
Dr. Richard J. Maraia, Preceptor  
Laboratory of Molecular Growth Regulation
- 300** • Sruthi R. Arepalli  
*Vascular Endothelial Growth Factor and the X Chromosome*  
Richard Montgomery High School  
Hometown: Rockville, MD  
Dr. Carolyn Bondy, Preceptor  
Developmental Endocrinology Branch
- 301** • Matthew Baron  
*Computational Modeling of Potassium Voltage-gated Ion Channels*  
Yale College  
Hometown: Bethesda, MD  
Dr. Dax Hoffman, Preceptor  
Laboratory of Cellular and Synaptic Neurophysiology
- 302** • Kyle Basques  
*Development of an Assay for the Measurement of Glucocorticoid Sensitivity*  
Harvard College  
Hometown: Great Falls, VA  
Dr. Lynnette Nieman, Preceptor  
Reproductive Biology and Medicine Branch
- 303** • Lorri-Anne F. Burke  
*Effects of Estrogen Receptor on Corticotrophin Releasing Hormone Transcription Levels*  
University of Maryland  
Hometown: Pittsburgh, PA  
Dr. Greti Aguilera, Preceptor  
Developmental Endocrinology Branch
- 304** • Robert J. Carrasquillo  
*Identification of the DNA Methylation Status of the LHR Gene Promoter upon Its Derepression by PKC alpha*  
Washington University in St. Louis  
Hometown: Rockville, MD  
Dr. Maria Dufau, Preceptor  
Endocrinology and Reproduction Research Branch
- 305** • Tianli Chen, Sefanit Urgessa  
*Genetic Screen for Visual System Connectivity Mutants in Drosophila*  
Thomas S. Wootton High School  
Albert Einstein High School  
Hometown: Gaithersburg, MD  
Silver Spring, MD  
Dr. Chi-Hon Lee,  
Dr. Lei Xu, Preceptors  
Laboratory of Gene Regulation and Development
- 306** • Mei-Hsin Cheng  
*Drosophila Optomotor Behavior as Measured by an Automatic Tracking System*  
Massachusetts Institute of Technology  
Hometown: Fredericksburg, VA  
Dr. Chi-Hon Lee, Preceptor  
Laboratory of Gene Regulation and Development
- 307** • Brooke G. Deckert  
*Genetic Dissection of the Drosophila Color Vision Circuit*  
Winston Churchill High School  
Hometown: Potomac, MD  
Dr. Chi-Hon Lee, Preceptor  
Laboratory of Gene Regulation and Development
- 308** • Namisha K. Dhillon  
*The Subcellular Location of Breast Nuclear-receptor Binding Auxiliary Protein in the Heart*  
Northwest High School  
Hometown: Gaithersburg, MD  
Dr. James Segars, Preceptor  
Reproductive Biology and Medicine Branch
- 309** • Andrew O. Ding  
*Analysis of Unliganded Thyroid Hormone Receptor-induced Gene Repression in Frog Development Using Adenovirus EIA as a Tool*  
Montgomery Blair High School  
Hometown: Potomac, MD  
Dr. Yukiyasu Sato, Preceptor  
Laboratory of Gene Regulation and Development
- 310** • Benjamin D. Easter  
*Metabolic Syndrome in African-American and Caucasian Adolescents*  
Princeton University  
Hometown: Richmond, VA  
Dr. Jack A. Yanovski, Preceptor  
Developmental Endocrinology Branch
- 311** • Daniel J. Edwards  
*Investigating the Role of TRAF4 in the Development of Xenopus laevis*  
Louisiana State University  
Hometown: Brentwood, TN  
Dr. Igor B. Dawid, Preceptor  
Laboratory of Molecular Genetics

- 312 • Ekaterina A. Eliseeva**  
*Comparing the Areas under Two Correlated ROC Curves Subject to Limit of Detection*  
 University of Chicago  
 Hometown: Chevy Chase, MD  
 Dr. Aiyi Liu, Preceptor  
 Division of Epidemiology, Statistics and Prevention Research
- 313 • Katelyn E. Foley**  
*Nuclear Staining and Somatic Cell Reprogramming*  
 University of Pennsylvania  
 Hometown: Lexington, KY  
 Dr. Itai Tzchori, Preceptor  
 Laboratory of Mammalian Genes and Development
- 314 • Margaret A. Fraser**  
*Molecular Modeling of Sugar Pyranose Rings as a Method for Refining the Dihedral Angular Dependence of NMR Spin Coupling Constants*  
 University of Kentucky  
 Hometown: Gaithersburg, MD  
 Dr. John B. Robbins, Preceptor  
 Laboratory of Developmental and Molecular Immunity
- 315 • Chadd M. Funk**  
*Chemically Inducible Inactivation of Protein Synthesis in Genetically Targeted Neurons*  
 Dartmouth College  
 Hometown: Millersville, PA  
 Dr. Bai Lu, Preceptor  
 Laboratory of Cellular and Synaptic Neurophysiology
- 316 • Anna Gabrielian**  
*The Effect of Retrocyclin-2 on Endocytosis*  
 University of Maryland  
 Hometown: Rockville, MD  
 Dr. Kamran Melikov, Preceptor  
 Laboratory of Cellular and Molecular Biophysics
- 317 • Arun Ganesh**  
*The Immunophilin FK506-binding Protein (FKBP) in a Mouse Model of Infantile Batten Disease*  
 University of Pennsylvania  
 Hometown: Clifton Park, NY  
 Dr. Anil Mukherjee, Preceptor  
 Heritable Disorders Branch
- 318 • David A. Germain**  
*Understanding Diffusion in the Drosophila Embryo Using Fluorescence Microscopy and Computational Modeling*  
 Stanford University  
 Hometown: Potomac, MD  
 Dr. Jennifer Lippincott-Schwartz, Dr. Manos Mavrikakis, Preceptors  
 Cell Biology and Metabolism Branch
- 319 • Audra L. Gollenberg**  
*Concurrent Validity of the Parent-completed Ages and Stages Questionnaires: Comparison with the Bayley Scales of Infant Development II at Ages 12 and 24 Months*  
 University of Massachusetts School of Public Health and Health Sciences  
 Hometown: Pittsfield, MA  
 Dr. Courtney D. Lynch, Preceptor  
 Division of Epidemiology, Statistics and Prevention Research
- 320 • Heraa S. Hajelsafi**  
*Regulation of the HPA Axis by Chronic Progesterone*  
 Johns Hopkins University  
 Hometown: McLean, VA  
 Dr. Greti Aguilera, Preceptor  
 Developmental Endocrinology Branch
- 321 • Janice J. He**  
*Interaction of Anti-microtubule Agents*  
 Groton School  
 Hometown: Southborough, MA  
 Dr. Dan Sackett, Preceptor  
 Laboratory of Integrative and Medical Biophysics
- 322 • David Y. Hu**  
*A Pilot Investigation of Infrared Imaging in Lean and Obese Adults*  
 Montgomery Blair High School  
 Hometown: North Potomac, MD  
 Dr. Jack A. Yanovski, Dr. Alexander M. Gorbach, Preceptors  
 Developmental Endocrinology Branch
- 323 • Stephen Hung**  
*Temperature Dependence of Cro Dissociation*  
 Richard Montgomery High School  
 Hometown: Rockville, MD  
 Dr. Donald Rau, Preceptor  
 Laboratory of Physical and Structural Biology
- 324 • Sudeh Izadmehr**  
*The Role of Force and Chemotaxis on the Aggregation of Endothelial Cells in Angiogenesis*  
 Rutgers University  
 Hometown: Wayne, NJ  
 Dr. Franck Amyot, Dr. Amir Gandjbakhche, Preceptors  
 Laboratory of Integrative and Medical Biophysics
- 325 • Anat Kimchi**  
*Expression Analysis of the QUAD RNAs*  
 Charles E. Smith Jewish Day School  
 Hometown: Potomac, MD  
 Dr. Gisela Storz, Preceptor  
 Cell Biology and Metabolism Branch
- 326 • Rebecca LePrell**  
*Determinants of Swimming Ability: An Implication for Variation in Youth Drowning Rates*  
 Emory University  
 Hometown: Bethesda, MD  
 Dr. Gitanjali Saluja, Preceptor  
 Division of Epidemiology, Statistics and Prevention Research

**327** • Jay H. Levin  
*Expression, Purification, and Analysis of GPIB beta, a Platelet Glycoprotein Critical for Normal Hemostasis*  
Brown University  
Hometown: Olney, MD  
Dr. Stephen G. Kaler; Preceptor  
Laboratory of Clinical Genomics

**328** • Anu S. Maharjan  
*RNAP Interferes with the Folding of Termination Hairpin: Implications for Intrinsic Termination*  
Smith College  
Hometown: Silver Spring, MD  
Dr. Natalia Komissarova,  
Dr. Robert Weisberg, Preceptors  
Laboratory of Molecular Genetics

**329** • Kathryn N. Maher  
*Function of Domain Movements in Yeast Translation Initiation Factor eIF5B*  
Pennsylvania State University  
Hometown: Massapequa, NY  
Dr. Thomas E. Dever;  
Dr. Byung-Sik Shin, Preceptors  
Laboratory of Gene Regulation and Development

**330** • Adrienne E. McGill  
*The Effect of Meals of Varying Glycemic Index on Blood Glucose Levels in Youth with Diabetes*  
Johns Hopkins Bloomberg School of Public Health  
Hometown: Baltimore, MD  
Dr. Tonja Nansel, Preceptor  
Division of Epidemiology, Statistics and Prevention Research

**331** • Tyler C. Miller;  
Rebecca B. Weinstein  
*Dyadic Interaction Study: Child's Reaction to Stranger at 15 Months*  
University of Montana  
University of Michigan  
Hometown: Valparaiso, IN  
Bethesda, MD  
Dr. Nanmathi Manian,  
Dr. Marc Bornstein, Preceptors  
Laboratory of Comparative Ethology

**332** • Jason P. Moran  
*Frequency of the R804H PDE11A Sequencing Variant among Patients with PRKARIA-inactivating Mutations*  
Georgetown University  
Hometown: East Amherst, NY  
Dr. Constantine A. Stratakis, Preceptor  
Developmental Endocrinology Branch

**333** • Sunni L. Mumford  
*Got Biomarkers Subject to Measurement Error?*  
Harvard School of Public Health  
Hometown: West Jordan, UT  
Dr. Enrique F. Schisterman,  
Dr. Albert Vexler; Preceptors  
Division of Epidemiology, Statistics and Prevention Research

**334** • Maureen O. Murphy-Ryan,  
Maanasi S. Mistry  
*Changes in Cell Cycle Kinetics during Postnatal Growth*  
Duke University  
Winston Churchill High School  
Hometown: Frederick, MD  
Potomac, MD  
Dr. Gabriela Finkelstain,  
Dr. Elizabeth Parker; Preceptors  
Developmental Endocrinology Branch

**335** • Obioma Ndubizu  
*Ultrasound Findings in 442 Women with Premature Ovarian Failure*  
Tulane University School of Medicine  
Hometown: Burtonsville, MD  
Dr. Larry Nelson, Preceptor  
Developmental Endocrinology Branch

**336** • Thoi Ngo  
*The Interaction between the Ribosome and Initiation Factor eIF5B*  
Walter Johnson High School  
Hometown: Rockville, MD  
Dr. Thomas E. Dever;  
Dr. Jeanne Fringer; Preceptors  
Laboratory of Gene Regulation and Development

**337** • Vina H. Nguyen  
*Molecular Mechanisms Regulating Growth and Development*  
Massachusetts Institute of Technology  
Hometown: Bethesda, MD  
Dr. Gabriela Finkelstain,  
Dr. Jeffrey Baron, Preceptors  
Developmental Endocrinology Branch

**338** • Josefa Pena  
*Intrauterine Environmental Exposures and Endometriosis*  
Texas A&M University Health Science Center, School of Rural Public Health  
Hometown: College Station, TX  
Dr. Germaine Louis, Preceptor  
Division of Epidemiology, Statistics and Prevention Research

**339** • Margaret R. Pruitt  
*Identification of Critical Domains in 18S rRNA That Regulate Translation Initiation in Eukaryotes*  
Duke University  
Hometown: Silver Spring, MD  
Dr. Jinsheng Dong,  
Dr. Alan Hinnebusch, Preceptors  
Laboratory of Gene Regulation and Development

- 340** • Audrey L. Quinn  
*Neuroanatomy of the Common Marmoset*  
University of Washington  
Hometown: West Linn, OR  
Dr. John D. Newman, Preceptor  
Laboratory of Comparative Ethology
- 341** • Candace A. Robledo  
*Indicators of Misoprostol Success after Early Pregnancy Loss*  
Texas A&M University Health Science Center, School of Rural Public Health  
Hometown: McAllen, TX  
Dr. Jim Zhang, Preceptor  
Division of Epidemiology, Statistics and Prevention Research
- 342** • Anna Rossovsky  
*Blocking Anthrax PA63 Channel by Cyclodextrin-based Highly Charged Drugs Studied on Multi- and Single-channel Level*  
Muhlenberg College  
Hometown: Livingston, NJ  
Dr. Ekaterina M. Nestorovich, Preceptor  
Laboratory of Physical and Structural Biology
- 343** • Ali N. Shabestari  
*Fiber-based Optical System to Measure in vivo Optical Properties of Skin*  
University of Maryland  
Hometown: Bethesda, MD  
Dr. Moinuddin Hassan, Preceptor  
Laboratory of Integrative and Medical Biophysics
- 344** • Brian Shiu  
*The Effect of Endophilin B on Lipid Bilayer Deformation*  
University of Maryland, Baltimore County  
Hometown: Ellicott City, MD  
Dr. Tatiana Rostovtseva, Preceptor  
Laboratory of Physical and Structural Biology
- 345** • Chantal Y. Spencer  
*Apoptosis of Ovarian Follicles in Transgenic Mice Carrying Fmr1 Premutation*  
Georgetown University  
School of Medicine  
Hometown: Washington, DC  
Dr. Lawrence Nelson, Preceptor  
Developmental Endocrinology Branch
- 346** • Aubrey L. Spriggs  
*Classroom Context and Adolescent Alcohol Use*  
University of North Carolina  
Hometown: Chapel Hill, NC  
Dr. Ron Iannotti, Preceptor  
Division of Epidemiology, Statistics and Prevention Research
- 347** • Rebecca J. Stevens  
*Current Status of Insurance Coverage for Infertility Treatment in the United States*  
Walt Whitman High School  
Hometown: Potomac, MD  
Dr. Germaine Buck Louis, Preceptor  
Division of Epidemiology, Statistics and Prevention Research
- 348** • Mary Beth Sutter  
*Proteoglycan Binding to Type I Collagen: Analysis by Confocal Microscopy*  
University of Maryland  
Hometown: Sparks, MD  
Dr. Sergey Leikin,  
Dr. Elena Makareeva, Preceptors  
Section on Physical Biochemistry
- 349** • Nicholas M. Tompkins  
*Phenotypic Analysis of Mice Lacking Activity-dependent Expression of BDNF by Promoter 3*  
Colorado State University  
Hometown: Fort Collins, CO  
Dr. Bai Lu,  
Dr. Kazuko Sakata, Preceptors  
Laboratory of Cellular and Synaptic Neurophysiology
- 350** • C. Jillian Tsai  
*Angiogenic Factors and Pregnancy Outcomes*  
Vanderbilt University  
Hometown: Nashville, TN  
Dr. Richard J. Levine, Preceptor  
Division of Epidemiology, Statistics and Prevention Research
- 351** • Zachary W. Ulissi  
*Enhancement of Subsurface Structures Using Polarization Imaging*  
University of Delaware  
Hometown: Bethesda, MD  
Dr. Amir Gandjbakhche, Preceptor  
Laboratory of Integrative and Medical Biophysics
- 352** • Dena Vander Tuig  
*Cholesterol Regulation of Sterol Delta 14-reductase and Lamin B Receptor Expression*  
Calvin College  
Hometown: Silver Spring, MD  
Dr. Forbes D. Porter, Preceptor  
Heritable Disorders Branch
- 353** • Rahul Venkateshwara  
*Glucocorticoids and Regulation of Corticotropin Releasing Hormone Transcription*  
Winston Churchill High School  
Hometown: Potomac, MD  
Dr. Greti Aguilera, Preceptor  
Developmental Endocrinology Branch
- 354** • Lisa M. Watanabe  
*Characterization of Small Noncoding RNAs That Basepair with the 3' Ends of mRNAs*  
University of Wisconsin  
Hometown: Las Vegas, NV  
Dr. Gisela Storz, Preceptor  
Cell Biology and Metabolism Branch
- 355** • Philip F. Zhang  
*Elevated Expression of Galectin-3 in the Brain of a Mouse Model of Infantile Batten Disease*  
Frostburg State University  
Hometown: Rockville, MD  
Dr. Anil Mukherjee, Preceptor  
Heritable Disorders Branch

## National Institute of Dental and Craniofacial Research (NIDCR)

**356 • Brook Asamenew**

*Vascularization in the Brain of Mice with Stroke*

University of Maryland,  
Baltimore County

Hometown: Burtonsville, MD

Dr. Eva Mezey,

Dr. Zsuzsanna Toth, Preceptors

Craniofacial and Skeletal

Diseases Branch

**357 • Phillip J. Fitzgerald**

*Transgene Expression Production after Submandibular Gland Administration of AdAQP1 in Saliva*

Suitland High School

Hometown: District Heights, MD

Dr. Bruce J. Baum,

Ms. Corinne M. Goldsmith, Preceptors

Gene Therapy and Therapeutics Branch

**358 • Monica Passi**

*Strategy for a Targeted Deletion of TGF Beta Receptor II in Mouse Odontoblasts*

Holton-Arms School

Hometown: Potomac, MD

Mr. Andrew Cho,

Dr. Ashok Kulkarni, Preceptors

Laboratory of Functional

Genomics Section

**359 • Maiko Sakai**

*Investigation of Neuronal Differentiation Potential of Dental Pulp Stem Cells*

Harvard School of Dental Medicine

Hometown: McLean, VA

Dr. Pamela G. Robey, Preceptor

Craniofacial and Skeletal

Diseases Branch

**360 • Natalie M. Sorbello**

*The Effect of Biglycan/Fibromodulin Deficiency on Tendon Cell Fate*

College of the Holy Cross

Hometown: Potomac, MD

Dr. Marian F. Young, Preceptor

Craniofacial and Skeletal

Diseases Branch

**361 • Jay E. Sulek**

*Characterization of UPARAP Expression in Cancerous Tissue Array*

Yale College

Hometown: LaVale, MD

Dr. Rebecca A. Wagenaar-Miller, Preceptor

Laboratory of Proteases and

Tissue Remodeling

**362 • Maria I. Trujillo**

*Oral and Craniofacial Findings in Dyskeratosis Congenita*

University of Texas at Houston

Dental Branch

Hometown: Houston, TX

Dr. Jane Atkinson, Preceptor

Clinical Research Core

## National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

- 363** • Emily S. Bartlett  
*Quantitation of the Expression of a Transcriptional Activator, MarA, in E. coli*  
Cornell University  
Hometown: Chevy Chase, MD  
Dr. Robert G. Martin,  
Dr. J. L. Rosner; Preceptors  
Laboratory of Molecular Biology
- 364** • Brian D. Belardi  
*O-GlcNAc Signaling in the Insulin Pathway*  
Carnegie Mellon University  
Hometown: Falls Church, VA  
Dr. Dona C. Love,  
Dr. John A. Hanover; Preceptors  
Laboratory of Cell Biochemistry  
and Biology
- 365** • Amanda B. Bell  
*Probing Human Plasma Glycoproteins Using Advanced Proteomics Technologies*  
Northeastern State University  
Hometown: Tahlequah, OK  
Dr. Sonja Hess,  
Dr. Daniel Eikel; Preceptors  
Office of the Scientific Director
- 366** • Atum M. Buo  
*The Role of Innate Immunity in Lentiviral-mediated Hematopoietic Stem Cell Transduction*  
Haverford College  
Hometown: North Potomac, MD  
Dr. John Tisdale,  
Dr. Kareem Washington; Preceptors  
Molecular and Clinical  
Hematology Branch
- 367** • Ricardo J. Carrero  
*Metabolic Analysis of FFR(GPR40) Knockout Mice*  
Universidad de Puerto Rico  
Hometown: Ponce, PR  
Dr. Stephen Wank; Preceptor  
Digestive Diseases Branch
- 368** • Billy M. Clifford-Nunn  
*Analysis of Glycated Hemoglobin Using Proteomic Methods and Mass Spectrometry*  
University of Michigan  
Hometown: Burton, MI  
Dr. Sonja Hess; Preceptor  
Office of the Scientific Director
- 369** • Omar A. Contreras  
*Does an Antisense Mechanism Trigger Gene Silencing in Fragile X Syndrome?*  
University of Arizona  
Hometown: Tucson, AZ  
Dr. Karen Usdin,  
Dr. Lata H. Mahishi; Preceptors  
Laboratory of Molecular and  
Cellular Biology
- 370** • Lisa M. DeGregoris  
*Changes in Globin Gene Expression and Chromatin Structure after Chemically Induced Differentiation of K562 Cells*  
University of Pennsylvania  
Hometown: Syosset, NY  
Dr. Ann Dean,  
Dr. Christine M. Kiefer; Preceptors  
Laboratory of Cellular and  
Developmental Biology
- 371** • Christopher Digesu  
*Do Beta Cells Turn Over in Adult Humans? Optimizing DNA Isolation for Carbon-14 Dating*  
Mississippi State University  
Hometown: Huntsville, AL  
Dr. John Tisdale,  
Dr. Shira Perl; Preceptors  
Molecular and Clinical  
Hematology Branch
- 372** • Nicholas B. Harell  
*Expression of IGFBP-rp1 in Podocytes in vitro and in vivo*  
University of Arizona  
Hometown: Chandler, AZ  
Dr. Jeffrey B. Kopp,  
Dr. Takayuki Matsumoto; Preceptors  
Kidney Diseases Branch
- 373** • Nathaniel Hodgson  
*Antibiotic-based in vivo Expression Technology for Screening for Helicobacter pylori Genes Induced during Infection of the Mouse Stomach*  
Gettysburg College  
Hometown: Rockville, MD  
Dr. William Coleman; Preceptor  
Laboratory of Biochemistry  
and Genetics
- 374** • Yin Huang  
*Expression and Characterization of the Deubiquitinating Enzyme Ataxin-3*  
Stanford University  
Hometown: Silver Spring, MD  
Dr. Yihong Ye; Preceptor  
Laboratory of Molecular Biology
- 375** • Alexander Y. Hui  
*Mathematical Modeling of Insulin Signaling Pathways*  
Johns Hopkins University  
Hometown: Bellevue, WA  
Dr. Arthur Sherman; Preceptor  
Laboratory of Biological Modeling
- 376** • Ryan A. Keefe  
*C-Peptide: Measuring an Indicator of Beta Cell Function*  
Boston College  
Hometown: Potomac, MD  
Dr. Kristina Z. Rother; Preceptor  
Diabetes Branch
- 377** • Matthew B. Kuehn  
*Yeast Two Hybrid Screening to Identify Genetic Partners of C. elegans Protein SZY-20*  
University of Maryland  
Hometown: Easton, MD  
Dr. Kevin F. O'Connell,  
Dr. Mi Hye Song; Preceptors  
Laboratory of Biochemistry  
and Genetics

- 378** • Anant Kumar  
*Nitrite Stimulates Cyclic GMP Production in Endothelial Cells*  
Princeton University  
Hometown: Bethesda, MD  
Dr. Alan N. Schechter;  
Dr. Nathawut Sibmooch, Preceptors  
Laboratory of Chemical Biology
- 379** • Jennifer J. Macdonald  
*Expression and Localization of TRAF2*  
University of Michigan  
Hometown: Novi, MI  
Dr. Yihong Ye, Preceptor  
Laboratory of Molecular Biology
- 380** • Laurel Macey  
*Analysis of Diet-induced Obesity in C57 and FVB Mice*  
Harvard College  
Hometown: Brooklyn, NY  
Dr. Oksana Gavrilova, Preceptor  
Office of the Scientific Director
- 381** • Everlee H. McCabe  
*Variants in Phosphoinositide-3-kinase Gene Are Associated with Type 2 Diabetes in Pima Indians*  
University of Kansas  
Hometown: Tuba City, AZ  
Dr. Leslie J. Baier;  
Dr. Rong Rong, Preceptors  
Phoenix Epidemiology and Clinical Research Branch
- 382** • Juanita McCarter  
*The Design of a Wallet Card to Help People with Diabetic Chronic Kidney Disease*  
Northeastern State University  
Hometown: Tahlequah, OK  
Dr. Robert G. Nelson, Preceptor  
Phoenix Epidemiology and Clinical Research Branch
- 383** • Victoria L. Mills  
*24-Hour Energy Expenditure*  
Northeastern State University  
Hometown: Okmulgee, OK  
Dr. Jonathan Krakoff,  
Mr. Thomas L. Brookshire, Preceptors  
Phoenix Epidemiology and Clinical Research Branch
- 384** • Patrina A. Pellett  
*The Synthesis of Ring Fluorinated Capsaicins*  
Pacific Lutheran University  
Hometown: Sitka, AK  
Dr. Kenneth Kirk, Preceptor  
Laboratory of Bioorganic Chemistry
- 385** • Clifford A. Pierre  
*Thalidomide Induces the Gamma Globin Gene Expression in Adult Erythropoiesis*  
New York University  
Hometown: Brooklyn, NY  
Dr. Wulin Aerbajinai,  
Dr. Griffin P. Rodgers, Preceptors  
Molecular and Clinical Hematology Branch
- 386** • Colin A. Powers  
*Phyletic Comparison of Energy Regulation*  
University of Maryland  
Hometown: College Park, MD  
Dr. Vipul Periwal,  
Dr. Carson C. Chow, Preceptors  
Laboratory of Biological Modeling
- 387** • Vasthie Prudent  
*Quantitative Analysis of Erythropoietin Receptor in the Mouse Heart*  
University of Miami  
Hometown: Miami, FL  
Dr. Constance T. Noguchi,  
Dr. Ruifeng Teng, Preceptors  
Laboratory of Chemical Biology
- 388** • Todd W. Regnier  
*Inhibition of Apoptosis in Mouse Myoblasts by Erythropoietin*  
University of Massachusetts  
Hometown: Ludlow, MA  
Dr. Yi Jia,  
Dr. Constance T. Noguchi, Preceptors  
Laboratory of Chemical Biology
- 389** • Melody Y. Shi  
*Genome-wide Expression Profiling Analysis to Identify Wilms' Tumor Suppressor*  
Walter Johnson High School  
Hometown: Bethesda, MD  
Dr. Sean B. Lee, Preceptor  
Genetics of Development and Diseases Branch
- 390** • Karen L. Sidransky  
*Development of a New Rat Kidney Fibrosis Model*  
Walter Johnson High School  
Hometown: Bethesda, MD  
Dr. Robert Star,  
Dr. Kento Doi, Preceptors  
Kidney Diseases Branch
- 391** • Andrew Y. Sun  
*Intravenous Ascorbic Acid: A Pro-drug for Ascorbate Radical Formation in vivo*  
University of Maryland  
Hometown: Rockville, MD  
Dr. Mark A. Levine,  
Dr. Qi Chen, Preceptors  
Digestive Diseases Branch
- 392** • Olivia Twu  
*Characterization of Monoclonal Antibodies Using Liquid Chromatography-Electrospray Ionization Mass Spectrometry*  
Ohio State University  
Hometown: Perrysburg, OH  
Dr. Sonja Hess, Preceptor  
Office of the Scientific Director

**393 • Eddie C. Wang**  
*The Role of DNA Mismatch Repair Proteins in DNA Damage Signaling*  
Montgomery Blair High School  
Hometown: Rockville, MD  
Dr. Peggy Hsieh, Preceptor  
Genetics and Biochemistry Branch

**394 • James Y. Wang**  
*Identification of Hepatitis B "X" Gene Homologs in Mammals*  
Harvard Medical School  
Hometown: Rush, NY  
Dr. Jake Liang, Preceptor  
Liver Diseases Branch

**395 • Nathaniel F. Ware**  
*Histronicotoxins and Novel Decahydroquinolines from Amazonian Poison Frogs (Dendrobatidae)*  
San Jose State University  
Hometown: San Lorenzo, CA  
Dr. John W. Daly, Preceptor  
Laboratory of Bioorganic Chemistry

**396 • Joseph Wolken**  
*Structure and Function Analysis of a Nuclear Periphery Protein, ESC1*  
New York University  
Hometown: Dix Hills, NY  
Dr. Orna Cohen-Fix, Preceptor  
Laboratory of Molecular and Cellular Biology

**397 • Terry C. Yin**  
*Genetic and Molecular Approaches to Locate Foiled Coil, a Gene for Testes Development in Drosophila melanogaster*  
Rutgers University  
Hometown: Cherry Hill, NJ  
Dr. Brian Oliver,  
Dr. John E. Smith, Preceptors  
Laboratory of Cellular and Developmental Biology

**398 • Colette C. Young**  
*Nutrient Sensing in Dictyostelium through TOR Pathway*  
Georgetown Visitation Preparatory School  
Hometown: Bethesda, MD  
Dr. Alan R. Kimmel,  
Dr. Taruna Khurana, Preceptors  
Laboratory of Cellular and Developmental Biology

**399 • Skye Zeller**  
*Changes in Adipose Cell Size Distribution May Be Associated with Adipogenesis*  
Dartmouth College  
Hometown: Ft. Lauderdale, FL  
Dr. Samuel Cushman,  
Dr. Sylvia Poulos, Preceptors  
Diabetes Branch

**400 • Shan Zhao**  
*Microarray Data Analysis*  
University of Rochester  
Hometown: Marina Del Rey, CA  
Dr. Maggie Cam, Preceptor  
Office of the Scientific Director

## National Institute of Environmental Health Sciences (NIEHS)

### 401 • Mary Conlon

*Defining Environmental Factors Implicated in the Pathogenesis of Systemic Autoimmune Diseases in Twins or Siblings Discordant for Disease*

Georgetown University  
Hometown: Montgomery Village, MD  
Dr. Mark Gourley,  
Dr. Frederick W. Miller; Preceptors  
Office of Clinical Research,  
Environmental Autoimmunity Group

### 402 • Christine Shieh

*Development of an in vitro Expression System for the Production of Human Histidyl-tRNA Synthetase (HARS) and Its Close Structural Homologue HARSL: Functional Analyses of HuCal Monoclonal Antibodies Discriminating HARSL and HARS*

University of Maryland,  
Baltimore County  
Hometown: Gaithersburg, MD  
Dr. Terrence O'Hanlon,  
Dr. Frederick W. Miller; Preceptors  
Office of Clinical Research,  
Environmental Autoimmunity Group

## National Institute of Mental Health (NIMH)

**403** • Adrian A. Alday  
*Functional Consequences of Chromogranin A Knockdown on PACAP-mediated Norepinephrine Secretion in Neurosecretory Cells*  
Bishop Hoban High School  
Hometown: Mountain Top, PA  
Dr. Lee E. Eiden,  
Dr. Tomris Mustafa, Preceptors  
Laboratory of Cellular and Molecular Regulation

**404** • Leila J. Ameli-Grillon  
*Vulnerability Factors for Migraine and Anxiety*  
Walter Johnson High School  
Hometown: Kensington, MD  
Dr. Kathleen R. Merikangas, Preceptor  
Mood and Anxiety Disorder Research Program

**405** • Gabriel N. Band  
*Expression of Leak Potassium Channels in the Central Nervous System of Drosophila*  
University of Maryland  
Hometown: Potomac, MD  
Dr. David J. Sandstrom,  
Dr. Howard A. Nash, Preceptors  
Laboratory of Molecular Biology

**406** • Clair Briggs  
*An Inducible Cre Recombinase Expression System*  
Montgomery Blair High School  
Hometown: Silver Spring, MD  
Dr. Scott Young,  
Ms. Anna Iacangelo, Preceptors  
Laboratory of Cellular and Molecular Regulation

**407** • Haena S. Cho  
*Regulation of Synaptic Plasticity during Chronic Stress*  
Thomas S. Wootton High School  
Hometown: North Potomac, MD  
Dr. Jing Du, Preceptor  
Laboratory of Molecular Pathophysiology

**408** • Prajna Chopra, Tierney Rogers  
*Genetic Influences on Reward Processes: An Eye Movement Study*  
Rochester Institute of Technology  
Hamilton College  
Hometown: Gaithersburg, MD  
Silver Spring, MD  
Dr. Monique Ernst,  
Ms. Elizabeth Schroth, Preceptors  
Mood and Anxiety Disorder Research Program

**409** • David H. Do  
*High-level Visual Adaptation Using Novel Volumetric Stimuli*  
University of Minnesota  
Hometown: Savage, MN  
Dr. David A. Leopold, Preceptor  
Unit on Cognitive Neurophysiology and Imaging

**410** • Cecilia C. Fix  
*Behavioral and Emotional Disorders in Puerto Rican and African American Youths*  
Columbia University  
Hometown: Alexandria, VA  
Dr. Kathleen R. Merikangas, Preceptor  
Mood and Anxiety Disorder Research Program

**411** • Jamie C. Gabriel  
*MRI Investigations of Cerebral Growth and Development in Autism Spectrum Disorders*  
Landon School  
Hometown: Great Falls, VA  
Dr. Susan Swedo,  
Dr. Audrey Thurm, Preceptors  
Pediatric and Developmental Neuropsychiatry Branch

**412** • Juan M. Giugale  
*Genes and Psychotic Decompensation: Is There a Connection?*  
University of Virginia  
Hometown: Alexandria, VA  
Dr. Jose Apud, Preceptor  
Clinical Brain Disorders Branch

**413** • Allie S. Gold  
*Obstetric Complications as a Risk Factor for Schizophrenia: Data from the Sibling Study Data Base*  
Maret School  
Hometown: Washington, DC  
Dr. Stefano Marengo, Preceptor  
Clinical Brain Disorders Branch

**414** • Mercede E. Gorham  
*What's the Deal with Depression?*  
North Carolina Agricultural and Technical State University  
Hometown: Upper Marlboro, MD  
Ms. Ellen Polignano, Preceptor  
Mood and Anxiety Disorder Research Program

**415** • Emma D. Griffin  
*Verbal Fluency and Neural Activity in Schizophrenia*  
Maret School  
Hometown: Washington, DC  
Dr. Karen F. Berman,  
Dr. Katherine Roe, Preceptors  
Clinical Brain Disorders Branch

**416** • Andrew C. Harbin  
*Serotonin Pathway Polymorphisms Associated with Brain Imaging Phenotypes*  
Tulane University School of Medicine  
Hometown: Baltimore, MD  
Dr. Francis J. McMahon,  
Dr. Amber E. Baum, Preceptors  
Unit on Genetic Basis on Mood and Anxiety Disorders

**417** • Christina Hatch, Joyce M. Lo, Ryan Scully  
*Familial Influences in Idiopathic Generalized Epilepsies*  
University of Maryland  
Wellesley College  
University of Maryland  
Hometown: Potomac, MD  
Flushing, NY  
Burtonsville, MD  
Dr. Allan F. Mirsky, Preceptor  
Section on Clinical and Experimental Psychology

**418** • Michael R. Haynes  
*Bayesian Modeling of Functional Connectivity in fMRI*  
Georgia Institute of Technology  
Hometown: Calhoun, LA  
Dr. Andreas Meyer-Lindenberg, Preceptor  
Genes, Cognition, and Psychosis Program

**419** • Timothy X. He  
*The Olfactory System in a Mouse Model of Fragile X Syndrome*  
Montgomery Blair High School  
Hometown: Bethesda, MD  
Dr. Carolyn B. Smith, Preceptor  
Laboratory of Cerebral Metabolism

**420** • David M. Huberdeau  
*Use of Micro-reactors for PET Radiotracer Synthesis May Improve Efficiency*  
Johns Hopkins University  
Hometown: Woodbridge, VA  
Dr. Shuiyu Lu, Preceptor  
Molecular Imaging Branch

**421** • Gregory H. Ihrie  
*Neuroanatomical Correlates of Klinefelter's Syndrome*  
University of Maryland  
Hometown: Bethesda, MD  
Dr. Francois M. Lalonde, Preceptor  
Geriatric Psychiatry Branch

**422** • Katherine E. Korelitz  
*Effects of Fluoxetine on Adverse Rearing Outcomes in Rhesus Monkeys*  
University of Maryland  
Hometown: North Potomac, MD  
Dr. Jim Winslow, Preceptor  
Primate Neurobiology Core Facility

**423** • Shweta S. Kumar  
*Neural Correlates of Memory Retrieval: An fMRI Study*  
Carnegie Mellon University  
Hometown: Lorton, VA  
Dr. Eugenia Radulescu,  
Dr. Joel Kleinman, Preceptors  
Clinical Brain Disorders Branch

**424** • Scott M. Mackenzie  
*Discrimination of Morphed Identities in a Face/Object Recognition Task in Macaque Monkeys*  
University of California, Irvine  
Hometown: Cupertino, CA  
Dr. Andrew H. Bell,  
Dr. Fadila Hadj-Bouziane, Preceptors  
Laboratory of Brain and Cognition

**425** • Mandana T. Manzari  
*Is the PiT2 Large Cytoplasmic Loop Important in Amphotropic Murine Leukemia Virus Syncytia Formation?*  
Winston Churchill High School  
Hometown: Potomac, MD  
Dr. Maribeth Eiden, Preceptor  
Laboratory of Cellular and Molecular Regulation

**426** • Marcos A. Mar  
*Using Simple Visual Aftereffects to Investigate Shape Processing*  
St. John's College  
Hometown: San Antonio, TX  
Dr. David A. Leopold, Preceptor  
Unit on Cognitive Neurophysiology and Imaging

**427** • Raghav R. Mattay  
*Visualization of Functional Connectivity Using fMRI and N-back Working Memory Task*  
Thomas Jefferson High School  
for Science and Technology  
Hometown: McLean, VA  
Dr. Karen F. Berman, Preceptor  
Clinical Brain Disorders Branch

**428** • Michelle Mendelsohn  
*A Study of Macrocephaly and Microcephaly in Young Children with Autism*  
Langley High School  
Hometown: Great Falls, VA  
Dr. Susan Swedo,  
Dr. Audrey Thurm, Preceptors  
Pediatric and Developmental Neuropsychiatry Branch

**429** • Howard W. Morris  
*The Role of Dendritic Cells in Neuroendocrine Immunoregulation*  
Dunbar High School  
Hometown: Washington, DC  
Dr. Cherie Butts, Preceptor  
Section on Neuroendocrine Immunology and Behavior

**430** • Stephen S. O'Connor  
*Implications of Emotional and Behavioral Disorders for Substance Abuse Prevention*  
Catholic University of America  
Hometown: Baltimore, MD  
Dr. Kathleen R. Merikangas, Preceptor  
Mood and Anxiety Disorder Research Program

**431** • Abhishek Pulla  
*Cognitive Control in Schizophrenia*  
Prairie School  
Hometown: Kenosha, WI  
Dr. Venkata S. Mattay, Preceptor  
Genes, Cognition, and Psychosis Program

**432** • Gabriella I. Ra'anan  
*A Comparison of the Effects of Emotional Stimuli on Attention in Bipolar Disorder and Mood Dysregulated Youth*  
Charles E. Smith Jewish Day School  
Hometown: Potomac, MD  
Dr. Ellen Leibenluft, Preceptor  
Pediatric and Developmental Neuropsychiatry Branch

**433** • Sucheta S. Ravindran  
*Determination of Glycosphingolipids in Tissue and Plasma*  
Bryn Mawr School  
Hometown: Hanover, MD  
Dr. Brian M. Martin,  
Dr. Gary J. Murray, Preceptors  
Laboratory of Neurotoxicology

**434** • Benjamin Rosenfeld  
*Assessing and Controlling for  
Across-scanner Variability in  
Signal-to-noise Ratio in fMRI Studies*  
University of Michigan  
Hometown: W Bloomfield, MI  
Dr. Anand Mattay, Preceptor  
Clinical Brain Disorders Branch

**435** • Patrick C. Schottel  
*Genetic Markers of Headaches Emerging  
during Antidepressant Treatment*  
Georgetown University  
School of Medicine  
Hometown: Washington, DC  
Dr. Gonzalo Laje, Preceptor  
Unit on Genetic Basis on Mood  
and Anxiety Disorders

**436** • Kimberly M. Seibert  
*Offspring of Vasoactive Intestinal  
Peptide-deficient Mice Exhibit  
Altered Sensory Reflexes*  
Bethesda Chevy Chase High School  
Hometown: Chevy Chase, MD  
Dr. Joanna M. Hill, Preceptor  
Laboratory of Behavioral Neuroscience

**437** • Anjali Shah  
*Age-related Changes in Emotional  
Information Processing: An fMRI Study*  
George Washington University  
Hometown: Hughesville, MD  
Dr. Venkata S. Mattay, Preceptor  
Genes, Cognition, and Psychosis Program

**438** • Gordon E. Sommers  
*GFAPtk: Dose Response Study in  
Transgenic Mice Using Ganciclovir to  
Suppress Adult Neurogenesis*  
Bethesda Chevy Chase High School  
Hometown: Kensington, MD  
Dr. Robert Schloesser, Preceptor  
Laboratory of Molecular Pathophysiology

**439** • Stephanie L. Stephens  
*Prepulse Inhibition in Oxytocin Knockout  
Mice after Administration of Psychotics*  
College of William and Mary  
Hometown: McLean, VA  
Dr. Heather Caldwell, Preceptor  
Laboratory of Cellular and  
Molecular Regulation

**440** • Selen G. Tolu  
*Maternal Behavior and Oxytocin  
Receptor Knockout Mice*  
University of Maryland  
Hometown: Gaithersburg, MD  
Dr. Scott Young,  
Dr. Heather Caldwell, Preceptors  
Laboratory of Cellular and  
Molecular Regulation

**441** • Julia K. Wessel  
*Parental Diagnoses in Youth with  
Bipolar Spectrum Disorders*  
Kenyon College  
Hometown: Washington, DC  
Dr. Melissa Brotman,  
Dr. Ellen Leibenluft, Preceptors  
Pediatric and Developmental  
Neuropsychiatry Branch

**442** • Shiwei Zhou  
*Mental Disorders in Children and  
Adolescents: Background and Rationale  
for the National Comorbidity Survey –  
Adolescent Extension*  
Okemos High School  
Hometown: Rockville, MD  
Dr. Kathleen R. Merikangas,  
Dr. Christian Grillon, Preceptors  
Mood and Anxiety Disorder  
Research Program

**443** • Devin A. Zibulsky  
*How Perceived Control Influences  
Fear and Anxiety: An Investigation  
Using Virtual Reality*  
Skidmore College  
Hometown: Bethesda, MD  
Dr. Ruben Alvarez,  
Dr. Christian Grillon, Preceptors  
Mood and Anxiety Disorder  
Research Program

## National Institute of Neurological Disorders and Stroke (NINDS)

**444 • Ali Alim-Marvasti**

*Perception of Voluntary Control of Hand Movements*  
Cambridge University (UK) –  
Massachusetts Institute of  
Technology (MIT) Exchange  
Hometown: Princeton, NJ  
Dr. Fatta Nahab,  
Dr. Mark Hallett, Preceptors  
Medical Neurology Branch

**445 • Kristin Alligood**

*Regulating *ubc9* Expression in  
Olfactory Sensory Neurons Using  
a Novel miRNA Approach*  
Smith College  
Hometown: Palm Coast, FL  
Dr. Leonardo Belluscio, Preceptor  
Developmental Neural Plasticity Unit

**446 • Shannon E. Auxier**

*C-fos Staining of the Nodose and  
Jugular Ganglia following LPS Injection  
to the Larynx*  
University of Maryland  
Hometown: Olney, MD  
Dr. Victor Henriquez, Preceptor  
Medical Neurology Branch

**447 • Philip D. Avigan**

*Studies of the Functional Differences  
between the R389 and G389 Beta-1  
Adrenergic Receptor Variants*  
Columbia University  
Hometown: Silver Spring, MD  
Dr. Peter Fishman, Preceptor  
Laboratory of Molecular and  
Cellular Neurobiology

**448 • Alyssa C. Baker**

*Kinematic Learning of Novel Speech Tasks*  
University of Maryland  
Hometown: Fulton, MD  
Dr. Torrey Loucks, Preceptor  
Medical Neurology Branch

**449 • Michael L. Baran**

*The Possibilities and Limitations of  
EEG-EMG Coherence*  
Marquette University  
Hometown: Elk Grove Village, IL  
Dr. Marjorie Garvey, Preceptor  
Medical Neurology Branch

**450 • Jo Barta**

*Effect of Voluntary Contraction of Lower  
Limb Muscles on Intracortical Inhibition  
in the Contralateral Resting Leg*  
University of Minnesota  
Hometown: Jordan, MN  
Dr. Monica Perez, Preceptor  
Medical Neurology Branch

**451 • Cecil Benitez**

*APP Regulates Signaling Events  
during Brain Development*  
University of California, Los Angeles  
Hometown: Tujunga, CA  
Dr. Brian Howell, Preceptor  
Neurogenetics Branch

**452 • Elizabeth L. Berry**

*HIV-1 Proviral DNA Is Present in Neural  
Progenitors Harvested from Archival  
Pediatric Hippocampal Tissue*  
Hampshire College  
Hometown: Bedford, MA  
Dr. Lynnae Schwartz,  
Dr. Eugene O. Major, Preceptors  
Laboratory of Molecular Medicine  
and Neuroscience

**453 • Mia Bjelogrić**

*Inhibition of *Pin1* Reduces Neuronal Cell  
Body Accumulation of Phosphorylated  
*NF-H* and Neuronal Death  
during Neurotoxicity*  
Towson University  
Hometown: Bethesda, MD  
Dr. Sashi Kesavapany, Preceptor  
Laboratory of Neurochemistry

**454 • Sarah M. Bourdon**

*Neuropsychiatric Correlates of  
Psychogenic Movement Disorders*  
University of Maryland,  
Baltimore County  
Hometown: Leonardtown, MD  
Dr. Valerie Voon, Preceptor  
Medical Neurology Branch

**455 • Phebe L. Brenne**

*Insulin Growth Factor 1:  
A Potential Therapy for Spinal  
and Bulbar Muscular Atrophy*  
University of Michigan  
Hometown: Silver Spring, MD  
Dr. Maria Pennuto,  
Dr. Kenneth Fischbeck, Preceptors  
Neurogenetics Branch

**456 • Martha F. Brucato**

*Microphthalmia-associated Transcription  
Factor: Role and Regulation during  
Retinal Development*  
Duke University  
Hometown: Sterling, VA  
Dr. Heinz Arnheiter,  
Dr. Kapil Bharti, Preceptors  
Laboratory of Developmental  
Neurogenetics

**457 • Kelly E. Buckholdt**

*White Matter Changes in Spasmodic  
Dysphonia: A DTI Study*  
University of Memphis  
Hometown: Bethesda, MD  
Dr. Kristina Simonyan, Preceptor  
Medical Neurology Branch

**458 • Tracy R. Butler**

*Stop-signal Task Performance in  
Psychogenic Movement Disorder Patients*  
Wittenberg University  
Hometown: Fort Wayne, IN  
Dr. Valerie Voon,  
Dr. Mark Hallett, Preceptors  
Medical Neurology Branch

- 459** • Meredith A. Chambers  
*A Potential Neural Cell Survival Function for the Lag Gene*  
Bucknell University  
Hometown: Bethesda, MD  
Dr. Lynn Hudson,  
Dr. Joseph Nielsen, Preceptors  
Developmental Genetics Section
- 460** • Julien Dagenais  
*Control of Paretic Hand Motion with an MEG-based Brain-computer Interface (BCI) in Chronic Stroke*  
Emory University  
Hometown: Chevy Chase, MD  
Mr. Ethan Buch, Preceptor  
Medical Neurology Branch
- 461** • Marshall L. Davis  
*Long-term Evaluation of Nodular and Ring Enhancing Lesions Evolution in Patients with Multiple Sclerosis*  
University of Northern Colorado  
Hometown: Rockville, MD  
Dr. Francesca Bagnato, Preceptor  
Neuroimmunology Branch
- 462** • Lena Derani, Vibha Mishra  
*Acquisition of Motor Skills in Focal Hand Dystonia*  
University of Michigan  
Walt Whitman High School  
Hometown: West Bloomfield, MI  
Bethesda, MD  
Dr. Ejaz Shamim,  
Dr. Suk-yun Kang, Preceptors  
Medical Neurology Branch
- 463** • Ayaboe K. Edoh  
*MRI Precise Positioning Bed for Surgery and Scanning*  
Walter Johnson High School  
Hometown: Rockville, MD  
Dr. Afonso Silva,  
Dr. George Nascimento, Preceptors  
Brain Stimulation Unit
- 464** • Ian J. Goodfellow  
*Task Specificity in Focal Hand Dystonia*  
Stanford University  
Hometown: Encinitas, CA  
Dr. Sarah Pirio Richardson, Preceptor  
Medical Neurology Branch
- 465** • Emily E. Greenberger  
*Molecular Characterization of Snapin's Role in Regulating Synaptic Transmission*  
Williams College  
Hometown: Sewickley, PA  
Dr. Jinhua Tian, Preceptor  
Synaptic Function Unit
- 466** • Caitlin E. Griffith  
*Effect of Anti-CD25 Antibody Therapy on Regulatory T Cells in Patients with Multiple Sclerosis*  
Grove City College  
Hometown: Damascus, MD  
Dr. Steven Jacobson,  
Dr. Unsung Oh, Preceptors  
Neuroimmunology Branch
- 467** • Katie E. Hughes  
*Using Synaptic Marker Proteins as a Measure of Synaptic Density in the Olfactory Bulb*  
University of Illinois  
Hometown: Orland Park, IL  
Dr. Leonardo Belluscio, Preceptor  
Developmental Neural Plasticity Unit
- 468** • Yessenia M. Ibarra  
*Molecular Characterization of Intracellular Trafficking of Plasma Membrane Syntaxins*  
San Diego State University  
Hometown: Bethesda, MD  
Dr. Zuhang Sheng,  
Dr. Qian Cai, Preceptors  
Synaptic Function Unit
- 469** • Dominic M. Ippolito  
*Clinical Trial Characterizing the Pharmacokinetics of 1-Octanol in Adults with Essential Tremor*  
Davidson College  
Hometown: Washington, DC  
Dr. Fatta Nahab, Preceptor  
Medical Neurology Branch
- 470** • Vijeth Iyengar  
*A Computerized Test of Conceptual Knowledge of Social and Animal Functions*  
Tulane University  
Hometown: Baton Rouge, LA  
Dr. Roland Zahn, Preceptor  
Cognitive Neuroscience Section
- 471** • Baijia Jiang  
*Mutational Analysis of the alpha 2 Helix of HLA-A2: Effect on T Cell Recognition*  
Montgomery Blair High School  
Hometown: Gaithersburg, MD  
Dr. Susan J. Gagnon, Preceptor  
Neuroimmunology Branch
- 472** • Shelby A. Kaplan  
*Using a Clinical Trial Repository for Smart Analysis and Re-design*  
Brody School of Medicine, East Carolina University  
Hometown: Cary, NC  
Ms. Marie Luby,  
Dr. Steven Warch, Preceptors  
Stroke Branch
- 473** • Turan A. Kayagil  
*Binary Control from EEG*  
Duke University  
Hometown: Arlington, VA  
Dr. Ou Bai, Preceptor  
Medical Neurology Branch
- 474** • Katie B. Knoedelseder  
*Structural and Functional Imaging of an Autosomal Dominant Epilepsy Syndrome*  
Vanderbilt University  
Hometown: St. Louis, MO  
Dr. William Theodore, Preceptor  
Clinical Epilepsy Section

- 475 • Pin-Yi Ko**  
*Analysis of Cortical Coupling in the Control of Bimanual Movements*  
Stanford University  
Hometown: Rockville, MD  
Dr. Peter Lin, Preceptor  
Medical Neurology Branch
- 476 • Amy Kuceyeski**  
*Identifying Endophenotypes in Bipolar Disorder Using Association Rule Mining, Frequent Itemsets, and Hypergraph Partitioning*  
Case Western Reserve University  
Hometown: Woodmere, OH  
Dr. Yang Fann,  
Dr. Amarendra Yavatkar, Preceptors  
Intramural Information  
Technology Program
- 477 • Prantik Kundu**  
*Searching for the Writing Motor Program*  
Manhattan College  
Hometown: Flushing, NY  
Dr. Noriaki Hattori, Preceptor  
Medical Neurology Branch
- 478 • Daniel J. Lee**  
*Mesial Temporal Sclerosis, Human Herpesvirus-6, and the Hippocampus*  
State University of New York Stony Brook School of Medicine  
Hometown: Flushing, NY  
Dr. William Theodore, Preceptor  
Clinical Epilepsy Section
- 479 • Joshua I. Lieberman**  
*Identifying Early Markers of Lineage Restriction in Cultured Neural Stem Cells*  
Charles E. Smith Jewish Day School  
Hometown: Bethesda, MD  
Dr. Daniel Hoepfner, Preceptor  
Laboratory of Molecular Biology
- 480 • Ran Liu**  
*Activation Patterns in the Ventromedial Prefrontal Cortex during the Processing of Aggressive Behavior in Adolescent Males*  
Carnegie Mellon University  
Hometown: Falls Church, VA  
Dr. Jordan Grafman,  
Ms. Kris Knutson, Preceptors  
Cognitive Neuroscience Section
- 481 • Joelle Marble**  
*Role of GluR5 and GluR6 Receptors in Seizure Induction: A Video EEG Monitoring Study*  
Touro College of Osteopathic Medicine  
Hometown: Benicia, CA  
Dr. Michael Rogawski,  
Dr. Brita Fritsch, Preceptors  
Epilepsy Research Section
- 482 • Elise M. Marshall**  
*Histrionics: A Database Mining Approach for Classification of Functional Disorders of the Autonomic Nervous System*  
University of Texas at El Paso  
Hometown: El Paso, TX  
Dr. David J. Goldstein,  
Dr. Neal Jeffries, Preceptors  
Clinical Neurocardiology Section
- 483 • Jenna B. Martin**  
*Timing of Voluntary Movement in Patients with Tourette Syndrome and Schizophrenia*  
University of Michigan  
Hometown: Beverly Hills, MI  
Dr. Sarah Pirio-Richardson, Preceptor  
Medical Neurology Branch
- 484 • Gautam U. Mehta**  
*Molecular and Pathologic Changes in Pituitary Gland in McCune-Albright Syndrome*  
Georgetown University  
School of Medicine  
Hometown: Los Altos, CA  
Dr. Alexander Vortmeyer, Preceptor  
Surgical Neurology Branch
- 485 • Hillery C. Metz**  
*Dynamics of GnRH-I Neuronal Migration: The Role of Anosmin*  
University of Idaho  
Hometown: Rockville, MD  
Dr. Susan Wray, Preceptor  
Cellular and Developmental  
Neurobiology Section
- 486 • Nathan Miletta**  
*Detecting Deception Utilizing Functional Magnetic Resonance Imaging*  
Northeastern University  
Hometown: Bridgeport, NY  
Dr. Mark Hallett,  
Dr. Fatta Nahab, Preceptors  
Medical Neurology Branch
- 487 • Brendan H. Milliner, Randi Heller**  
*Inhibition of Glucocorticosteroid Synthesis Protects against Seizure: The Involvement of Neurosteroids*  
Amherst College  
Northwestern University  
Hometown: Rochester, MN  
Paradise Valley, AZ  
Dr. Rafal Kaminski, Preceptor  
Epilepsy Research Section
- 488 • Aaron Miracle**  
*Quantification of Chronic Lesion Evolution in Human Ischemic Stroke Using T2-weighted FLAIR Imaging*  
University of Michigan  
Hometown: McLean, VA  
Dr. Lawrence Latour,  
Dr. Erica Henning, Preceptors  
Stroke Branch
- 489 • Vibha Mishra, Lena Derani**  
*Measuring Fatigue in Patients with Early Parkinson's Disease Using the At-home Testing Device*  
Walt Whitman High School  
University of Michigan  
Hometown: Bethesda, MD  
West Bloomfield, MI  
Dr. Ejaz Shamim,  
Dr. Mark Hallett, Preceptors  
Medical Neurology Branch

- 490** • Valerie S. Morash  
*Classification and Prediction of EEG Signals Preceding Four Movements, Real and Imagined*  
Massachusetts Institute of Technology  
Hometown: Cambridge, MA  
Dr. Ou Bai,  
Dr. Mark Hallett, Preceptors  
Medical Neurology Branch
- 491** • Matthew C. Morris  
*Expression of Serotonin and Sialic Acid Receptors for JC Virus Entry into Different Primary Human Brain Cell Types*  
DeMatha Catholic High School  
Hometown: Kensington, MD  
Dr. Maria Chiara Monaco-Kushner,  
Dr. Eugene O. Major, Preceptors  
Laboratory of Molecular Medicine and Neuroscience
- 492** • Reut Mushkat  
*Kinetics of Lineage Marker Expression in Primary and Derivative CNS Stem Cells*  
University of Maryland  
Hometown: Rockville, MD  
Dr. Daniel Hoepfner, Preceptor  
Laboratory of Molecular Biology
- 493** • Diana Nemeš  
*Monitoring Immunological Responses to Self Antigens in a Model of CNS Autoimmunity*  
University of Louisiana at Alexandria  
Hometown: Alexandria, LA  
Dr. Jacqueline A. Shukaliak-Quandt, Preceptor  
Neuroimmunology Branch
- 494** • Timothy D. O'Connor  
*APSAT: Affymetrix Probe Set Alignment Tool Using Scalable Vector Graphics*  
Brigham Young University  
Hometown: Provo, UT  
Dr. Yang Fann,  
Mr. Amar Yavatkar, Preceptors  
Intramural Information Technology Program
- 495** • Narendra C. Panapitiya  
*Histological Validation of USPIO Enhancement and Concomitant Macrophage Activity following Transient MCA Occlusion*  
University of Pittsburgh  
School of Medicine  
Hometown: Pittsburgh, PA  
Dr. Erica Henning, Preceptor  
Stroke Branch
- 496** • Scott M. Paviol  
*Executive Function in Corticobasal Syndrome Patients*  
Pennsylvania State College of Medicine  
Hometown: Carlisle, PA  
Dr. Ted Huey, Preceptor  
Cognitive Neuroscience Section
- 497** • Emily A. Prentice  
*Long-term Observation of CNS Stem Cells*  
Thomas Jefferson High School for Science and Technology  
Hometown: Vienna, VA  
Dr. Daniel Hoepfner, Preceptor  
Laboratory of Molecular Biology
- 498** • Steven J. Quinn  
*Characterization of D1 and D2 Dopamine Receptor Interactions with the Na<sup>+</sup>/K<sup>+</sup>-ATPase*  
University of Virginia  
Hometown: Great Falls, VA  
Dr. Lisa Hazelwood,  
Dr. Dave Sibley, Preceptors  
Molecular Neuropharmacology Section
- 499** • Christina Rabinak  
*USPIO Visualization of the Inflammatory Cascade following Transient MCAO in Spontaneously Hypertensive Rats*  
University of Iowa  
Hometown: Naperville, IL  
Dr. Lawrence Latour,  
Dr. Erica Henning, Preceptors  
Stroke Branch
- 500** • Abigail J. Rao  
*The Effects of Tom7 on Regulation of Mitochondrial Morphology*  
Dartmouth Medical School  
Hometown: Madison, WI  
Dr. Craig Blackstone, Preceptor  
Cellular Neurology Unit
- 501** • Kadeem Y. Richardson  
*3T Tissue Selective Images to Characterize in vivo Chronic Black Holes in Patients with Multiple Sclerosis*  
Greater New York Academy  
Hometown: Bronx, NY  
Dr. Francesca Bagnato, Preceptor  
Neuroimmunology Branch
- 502** • Victoria A. Rodriguez  
*Startle Response in Patients with Psychogenic Movement Disorder*  
Washington University in St. Louis  
Hometown: Downers Grove, IL  
Dr. Masao Matsushashi, Preceptor  
Laboratory of Neurophysiology
- 503** • Victoria Rudd  
*Development and Proteomic Analysis of a Subarachnoid Hemorrhage-induced Cerebral Vasospasm in a Primate Model*  
University of Maryland  
Hometown: Potomac, MD  
Dr. Zhengping Zhuang,  
Dr. Chunyue Yin, Preceptors  
Surgical Neurology Branch
- 504** • Michelle Sarin  
*Effects of Unilateral and Bilateral Training on Motor Function in Chronic Stroke*  
Indiana University  
Hometown: Carmel, IN  
Dr. Michelle Harris-Love,  
Dr. Leonardo G. Cohen, Preceptors  
Medical Neurology Branch

**505 • Michael J. Shen**  
*Targeted Transduction of Malignant Glioma Cells by a Recombinant Lentiviral Vector*  
Pikesville High School  
Hometown: Baltimore, MD  
Dr. John K. Park,  
Mr. John Jarboe, Preceptors  
Surgical Neurology Branch

**506 • Nirmish Singla**  
*Spectral Sensitivity of Glutamate ON-response Components in the Photopic ERG of Danio rerio Retina*  
Andover High School  
Hometown: Bloomfield Hills, MI  
Dr. Ralph F. Nelson, Preceptor  
Neural Circuits Unit

**507 • Andrew D. Snyder**  
*Make Me an Offer: Performance Differences between Normal Controls and Patients with Focal Lesions in an Auction Task Experiment*  
University of Chicago  
Hometown: Kensington, MD  
Dr. Jordan Grafman,  
Dr. Frank Krueger, Preceptors  
Cognitive Neuroscience Section

**508 • John T. Stranix**  
*Plasma Myeloperoxidase Levels and Long-term Deficit after Stroke*  
University of Virginia  
Hometown: Vienna, VA  
Dr. Alison E. Baird,  
Dr. Violet Wright, Preceptors  
Stroke Branch

**509 • Brooke E. Tortorella**  
*The Characterization of Candidate Downstream Components of Rac GTPase Signaling in Drosophila Larval Hemocytes*  
College of William and Mary  
Hometown: Sagaponack, NY  
Dr. Edward Giniger,  
Dr. Pam Bradley, Preceptors  
Axon Guidance and Neural Connectivity Unit

**510 • Claire M. Twark**  
*Characterization of Novel Human Mitochondrial Membrane Proteins: Finding Interaction Partners Using a Two-Hybrid Screen*  
Harvard College  
Hometown: Denver, CO  
Dr. Richard J. Youle,  
Dr. Albert Neutzner, Preceptors  
Surgical Neurology Branch

**511 • Charlotte A. Watts**  
*Effect of Ischemic Preconditioning on the Surface Expression of NMDA Receptors in Hippocampal Neurons*  
Georgetown University  
Hometown: Washington, DC  
Dr. S B. Andrews,  
Dr. Christine Brantner, Preceptors  
Laboratory of Neurobiology

**512 • Erika K. Williams**  
*Stimulus Train-induced Bursting as an in vitro Model of Epilepsy*  
Williams College  
Hometown: Fairport, NY  
Dr. Michael Rogawski, Preceptor  
Epilepsy Research Section

**513 • Min H. Wu**  
*Tracing the Development and Co-lineage Expression of TRPC Channel Subtypes in the Embryonic Rat Telencephalon*  
Brown University  
Hometown: Olney, MD  
Dr. Dragan Maric, Preceptor  
Laboratory of Neurophysiology

**514 • John B. Xia**  
*Advanced Proteomic Profiling Identifies Bio-markers to Distinguish Oligodendrogliomas from Astrocytomas*  
University of Michigan  
Hometown: Troy, MI  
Dr. Jje Li,  
Dr. Zhengping Zhuang, Preceptors  
Surgical Neurology Branch

**515 • Victoria V. Yakovleva**  
*Two-photon Microscopy of Cerebral Microcirculatory Response to Functional Stimulation*  
University of Wisconsin  
Hometown: Shorewood, WI  
Dr. Afonso Silva,  
Dr. Bojana Stefanovic, Preceptors  
Laboratory of Functional and Molecular Imaging

**516 • Wan J. Yang**  
*Varying Levels of JCV Infection during Differentiation of Primary Human Progenitor-derived Oligodendrocytes*  
University of Washington  
Hometown: Redmond, WA  
Dr. Maria Chiara Monaco-Kushner,  
Dr. Eugene O. Major, Preceptors  
Laboratory of Molecular Medicine and Neuroscience

## National Institute of Nursing Research (NINR)

**517 • Jessica Conjour**  
*Exploring the U.S. Public Health  
Service Nursing Career Path through  
a Synthesis of Narratives from  
Commissioned Student Officers and  
Commissioned Corps Nurse Officers*  
University of Maryland,  
Baltimore County  
Hometown: Havre de Grace, MD  
Dr. Sue Marden, Preceptor  
Symptom Management Laboratory

**518 • Malissa da Graca**  
*The Mozart Effect in the NICU*  
University of Maryland  
Hometown: Bowie, MD  
Dr. Sue Marden,  
Dr. Jane Fall-Dickson, Preceptors  
Symptom Management Laboratory

## National Institute on Aging (NIA)

**519** • Stephen L. Berger

*Studies of APP Gene Dosage in Alzheimer's Disease*  
Johns Hopkins University  
Hometown: Darnestown, MD  
Dr. Parastoo Momeni, Preceptor  
Laboratory of Neurogenetics

**520** • Katharine O. Boles

*Characterization of Sea Urchin RAG1-RAG2 Interaction Domain*  
University of North Carolina  
Hometown: Charlotte, NC  
Dr. Sebastian D. Fugmann, Preceptor  
Laboratory of Cellular and Molecular Biology

**521** • Hakeenah F. Brown

*Investigation of the Relationship between Wnt5a and Claudin-1*  
University of Maryland Eastern Shore  
Hometown: Wilmington, DE  
Dr. Ashani Weeraratna,  
Dr. Poloko D. Leotlela, Preceptors  
Laboratory of Immunology

**522** • Tyesha N. Burks

*Recombination-mediated Large Insert DNA Modification to Study Long-range Transcription Control Elements*  
University of Maryland Eastern Shore  
Hometown: Millville, NJ  
Dr. Ramaiah Nagaraja, Preceptor  
Laboratory of Genetics

**523** • Daniel Camacho

*The Characterization of a Panel of Cell Surface Receptors on Mouse Mastocytoma Cell Line P815*  
University of Arizona  
Hometown: Tucson, AZ  
Dr. Irving W. Wainer, Preceptor  
Laboratory of Clinical Investigation

**524** • Yunyoung C. Chang

*The Effect of Chronic Treatment with Mood Stabilizers on the Levels of BDNF Protein and Bcl-2 Protein in Rat Frontal Cortex*  
University of Pennsylvania  
Hometown: Potomac, MD  
Dr. Jagadeesh Rao, Preceptor  
Brain, Physiology and Metabolism Section

**525** • Michael Z. Chen

*An RNAi-based Screen for Genes Affecting Tissue Aging in the Nematode C. elegans*  
Duke University  
Hometown: Rockville, MD  
Dr. Catherine Wolkow, Preceptor  
Laboratory of Neurosciences

**526** • Kelly R. Daigle

*Toxicity of Parkinson's-associated Chemicals on Neuronal Cells following Induction of PINK1*  
North Carolina State University  
Hometown: Raleigh, NC  
Dr. Marcel van der Brug,  
Dr. Mark R. Cookson, Preceptors  
Laboratory of Neurogenetics

**527** • Hannah R. Day

*Mediators of the Relationship between Depressive Symptomatology and Change in Physical Function over a Three-year Follow-up*  
University of Maryland,  
Baltimore County  
Hometown: Perkasie, PA  
Dr. Jack M. Guralnik,  
Dr. Kushang V. Patel, Preceptors  
Laboratory of Epidemiology,  
Demography and Biometry

**528** • Mark C. DeBlois

*Effects of SOD1 Mutations on Myoblasts*  
University of Hawaii  
Hometown: Honolulu, HI  
Dr. Simonetta Camandola, Preceptor  
Laboratory of Neurosciences

**529** • Ashley L. Devonshire

*Metabolic Correlates of Aging Muscle: Preliminary Data from the Baltimore Longitudinal Study of Aging*  
Johns Hopkins University  
Hometown: Baltimore, MD  
Dr. Shari Ling,  
Dr. Edgar Miller, Preceptors  
Clinical Research Branch

**530** • Chineye D. Emeche

*The Role of Wnt5a in SDF1 $\alpha$ -mediated T Cell Migration*  
University of Maryland Eastern Shore  
Hometown: Rockville, MD  
Dr. Manik C. Ghosh, Preceptor  
Laboratory of Immunology

**531** • Divya Enika

*Age-related Changes in Gene and Protein Expression in the Murine Spleen*  
Parkville High School  
Hometown: Nottingham, MD  
Dr. Dennis Taub,  
Dr. Ashani Weeraratna, Preceptors  
Laboratory of Immunology

**532** • Joshua E. Erlandsen

*Is Antibody Hypermutation Related to Frequency of RNA Transcription?*  
University of Texas at San Antonio  
Hometown: San Antonio, TX  
Dr. Stella A. Martomo, Preceptor  
Laboratory of Molecular Gerontology

**533** • Amanda D. French

*Analysis of the Effect of a High Salt Diet on the Induction of the Senescence-associated Phenotype and Function in Rhesus Monkey Endothelial Cells*  
University of Maryland  
Hometown: Jarrettsville, MD  
Dr. Gaia Spinetti, Preceptor  
Laboratory of Cardiovascular Science

- 534** • Ana L. Gustafson  
*Do Abnormalities of Extracellular Matrix Elements Lead to Autoimmune Disorders? High Incidence of Rheumatologic Disorders in Persons with Ehlers Danlos Syndrome*  
Brown University  
Hometown: Fargo, ND  
Dr. Wuyen Chen, Preceptor  
Laboratory of Clinical Investigation
- 535** • Kendra Harris  
*Amyloid Precursor Protein Localization in Alzheimer's Disease*  
Princeton University  
Hometown: Fairfax Station, VA  
Dr. Huaibin Cai, Preceptor  
Laboratory of Neurogenetics
- 536** • Patrice N. Harris  
*The Role of p53 in Human Mitochondrial DNA Repair*  
University of Maryland Eastern Shore  
Hometown: Abingdon, MD  
Dr. Nadja C. Souza-Pinto, Preceptor  
Laboratory of Molecular Gerontology
- 537** • Belinda R. Hauser  
*Evaluation of the Potential for Resveratrol to Ameliorate Cisplatin-induced Neurotoxicity*  
University of Maryland Eastern Shore  
Hometown: Bryans Road, MD  
Dr. Paul Pistell,  
Dr. Donald Ingram, Preceptors  
Laboratory of Experimental Gerontology
- 538** • Shafaq Jameel  
*Gamma Secretase Impaired Tissue Repair in Mice*  
University of Massachusetts  
Hometown: Attleboro, MA  
Dr. Mark P. Mattson,  
Dr. Shrinu Chigurupati, Preceptors  
Laboratory of Neurosciences
- 539** • Adrienne K. Jones  
*Red Cell Oxidative Stress in HANDLS Subjects*  
University of Maryland Eastern Shore  
Hometown: Prince George, VA  
Dr. Joy G. Mohanty, Preceptor  
Molecular Dynamics Section
- 540** • Davida F. Kamara  
*Impact of Dietary Restriction on the Cocaine-induced Plasticity of Mouse Brain*  
Virginia Polytechnic Institute and State University  
Hometown: Roanoke, VA  
Dr. Xiangru Xu,  
Dr. Mark P. Mattson, Preceptors  
Laboratory of Neurosciences
- 541** • Steven Kebejian  
*Regulation of Plasma Membrane Calcium ATPase Isoforms in NMDA Preconditioning*  
Johns Hopkins University  
Hometown: Towson, MD  
Dr. Marc Gleichmann, Preceptor  
Laboratory of Neurosciences
- 542** • Gunnar F. Kwakye  
*The Effects of Ketogenic Diet on Gliogenesis following Neuronal Injury*  
University of Maryland Eastern Shore  
Hometown: Princess Anne, MD  
Dr. Jessica Carmen,  
Dr. Tim Magnus, Preceptors  
Laboratory of Neurosciences
- 543** • Marcus E. Lewis  
*Isolation and HPLC Separation of Fluorescent Heme Degradation Products from Hemoglobin Reacted with Hydrogen Peroxide*  
University of Maryland Eastern Shore  
Hometown: Scotland, MD  
Dr. Joy G. Mohanty, Preceptor  
Molecular Dynamics Section
- 544** • Denisha R. Little  
*The Link between Self-reported Health and Demographics in the HANDLS Study*  
Winston Salem State University  
Hometown: Wadesboro, NC  
Dr. Alan B. Zonderman, Preceptor  
Laboratory of Personality and Cognition
- 545** • Richard C. Liu  
*Rescue of Mouse Embryonic Stem Cells' Ability to Contribute to Germ Lines in Chimeras*  
Stanford University  
Hometown: Sewell, NJ  
Dr. Minoru Ko,  
Dr. Lioudmila Sharova, Preceptors  
Laboratory of Genetics
- 546** • Cristina Luiggi  
*Identification of Gene Expression Patterns Associated with the Development of Cisplatin Resistance*  
University of Puerto Rico  
Hometown: Mayaguez, PR  
Dr. Patrice J. Morin, Preceptor  
Laboratory of Cellular and Molecular Biology
- 547** • Xu Luo  
*Experiments with Agents That Lower Blood Glucose in Diabetes*  
Dulaney High School  
Hometown: Lutherville, MD  
Dr. Josephine Egan, Preceptor  
Laboratory of Clinical Investigation
- 548** • Donnetta S. McFadden  
*Effects of the Phosphodiesterase 5 Inhibitor Vardenafil on Learning and Memory in Rats*  
University of Maryland,  
Baltimore County  
Hometown: Joppatowne, MD  
Dr. Paul Pistell,  
Dr. Donald Ingram, Preceptors  
Laboratory of Experimental Gerontology

- 549** • Gabriel E. Merlin  
*Effect of Hyaluronic Acid on Glia Progenitor Cells in an Autoimmune Inflammatory Environment*  
Washington University in St. Louis  
Hometown: Newton, MA  
Dr. Tim Magnus, Preceptor  
Laboratory of Neurosciences
- 550** • Omid Motabar  
*Correlates of Heart Rate Response to Orthostatic Challenge: Preliminary Data from the Baltimore Longitudinal Study of Aging*  
University of Pennsylvania  
Hometown: Darnestown, MD  
Dr. Shari Ling,  
Dr. Edgar Miller, Preceptors  
Clinical Research Branch
- 551** • Arpun Nagaraja  
*End-user Tools for Image Classification in the Open Microscopy Environment (OME)*  
Massachusetts Institute of Technology  
Hometown: Baltimore, MD  
Dr. Ilya Goldberg,  
Mr. Josiah Johnston, Preceptors  
Laboratory of Genetics
- 552** • Hanh H. Nguyen  
*Role of XRCC1 in Neuronal Cell Survival*  
Stanford University  
Hometown: Seattle, WA  
Dr. David M. Wilson, Preceptor  
Laboratory of Molecular Gerontology
- 553** • Niraj R. Patel  
*Regulation of alpha-Synuclein Phosphorylation in Mammalian Cells*  
Gaithersburg High School  
Hometown: Laytonsville, MD  
Dr. David W. Miller,  
Dr. Mark R. Cookson, Preceptors  
Laboratory of Neurogenetics
- 554** • Judit M. Perez  
*Role for gamma-Secretase-mediated Notch Signaling in Parkinson's Disease*  
University of Puerto Rico  
Hometown: San Juan, PR  
Dr. Thiruma V. Arumugam, Preceptor  
Laboratory of Neurosciences
- 555** • Elaine Pranski  
*Effect of PMA on the mTOR Signaling Pathway*  
Washington College  
Hometown: Baltimore, MD  
Dr. Paritosh Ghosh,  
Ms. Rachel Munk, Preceptors  
Laboratory of Immunology
- 556** • Shannon Roberson  
*DNA Methylation Changes of the IgH Locus during B Cell Development*  
Loyola University  
Hometown: Pearland, TX  
Dr. Roza Selimyan,  
Dr. Ranjan Sen, Preceptors  
Laboratory of Cellular and Molecular Biology
- 557** • Ankita Saxena  
*Gene Expression Analysis of Signal Transduction Pathways in Aging Mouse Thymocytes*  
Centennial High School  
Hometown: Ellicott City, MD  
Dr. Dennis Taub,  
Ms. Ana Lustig, Preceptors  
Laboratory of Immunology
- 558** • Jeanne K. Seeberger  
*The Effect of Nutrient Ratio on Lifespan and Reproduction in Drosophila melanogaster*  
Washington College  
Hometown: Parkton, MD  
Dr. Sige Zou, Preceptor  
Laboratory of Experimental Gerontology
- 559** • Jonathan S. Steer  
*Assessing the Bioenergetics of Magnetically Labeled Cells using 31P NMR, MRI, and Iron Oxide Particles*  
Washington University in St. Louis  
Hometown: Deerfield, IL  
Dr. Richard G. Spencer,  
Dr. Kenneth W. Fishbein, Preceptors  
Laboratory of Clinical Investigation
- 560** • Ali Syed  
*Kinase Activity and Inhibition of LRRK2/Idardarin, a Common Genetic Cause of Parkinson's Disease*  
University of Maryland,  
Baltimore County  
Hometown: Burtonsville, MD  
Dr. Mark R. Cookson, Preceptor  
Laboratory of Neurogenetics
- 561** • Raluca T. Tavaluc  
*Reduction in the Beneficial Effects of Caloric Restriction on DMBA-induced Skin Tumors in Nrf2 Knockout Mice*  
John P. Stevens High School  
Hometown: Edison, NJ  
Dr. Rafael de Cabo, Preceptor  
Laboratory of Experimental Gerontology
- 562** • Sean W. Tsao  
*Role for gamma-Secretase-mediated Notch Signaling in Alzheimer's Disease*  
University of California, Los Angeles  
Hometown: Los Angeles, CA  
Dr. Thiruma V. Arumugam,  
Dr. Mark P. Mattson, Preceptors  
Laboratory of Neurosciences
- 563** • Sarinnapha Vasunilashorn  
*Short Physical Performance Battery Score Predicts Loss of Ability to Walk 400m: Analysis from the InCHIANTI Study*  
University of Southern California  
Hometown: Granada Hills, CA  
Dr. Jack M. Guralnik,  
Dr. Antonia K. Coppin, Preceptors  
Laboratory of Epidemiology,  
Demography and Biometry

**564 •** Lauren E. Wilson  
*Genetic Analysis of a New Component  
of the FA Core Complex, Hip, in  
Chicken DT40 Cells*  
Hamilton College  
Hometown: Phoenix, MD  
Dr. Dongyi Xu,  
Dr. Weidong Wang, Preceptors  
Laboratory of Genetics

**565 •** Derek H. Yuan  
*Identification of Human Chromatin  
Remodeling PBAF Complex  
Regulated Genes*  
Wake Forest University  
School of Medicine  
Hometown: Baltimore, MD  
Dr. Zhijiang Yan, Preceptor  
Laboratory of Genetics

**566 •** Yixiao Zou  
*Telomere Length and Telomerase  
Activation in Peripheral Blood  
Lymphocytes of Chronically  
Stressed Individuals*  
Georgia Institute of Technology  
Hometown: Lilburn, GA  
Dr. Nan-ping Weng,  
Dr. Amanda K. Damjanovic, Preceptors  
Laboratory of Immunology

## National Institute on Alcohol Abuse and Alcoholism (NIAAA)

**567** • Alicia L. Janos

*Using a Mouse Model to Evaluate the Role of Dopamine D1 Receptors as Potential Novel Therapeutic Targets for PTSD*  
Cornell University  
Hometown: Darnestown, MD  
Dr. Andrew Holmes, Preceptor  
Laboratory for Integrative Neuroscience

**568** • Jaynann Juhasz

*Genetic Modulation of Fear Extinction in Mice*  
Brigham Young University  
Hometown: Springfield, VA  
Dr. Andrew Holmes, Preceptor  
Laboratory for Integrative Neuroscience

**569** • Shiva Kambhampati

*Non-viral Vectors for Gene Transfer into the Rodent Brain*  
George Washington University  
Hometown: Columbia, MD  
Dr. PJ Brooks, Preceptor  
Laboratory of Neurogenetics

**570** • Brian S. Park

*Ethanol Effects on Cortical Striatal Synaptic Plasticity*  
University of Maryland  
Hometown: Rockville, MD  
Dr. Rui Costa,  
Dr. Henry Yin, Preceptors  
Laboratory for Integrative Neuroscience

**571** • Michelle M. Viola

*Cardiovascular Responses to Increased Omega-3 Intake among Aggressive Alcoholics*  
California State University, Chico  
Hometown: Redding, CA  
Dr. Joseph Hibbeln, Preceptor  
Laboratory of Membrane Biochemistry and Biophysics

**572** • Christine N. White

*Mechanisms Underlying the Different Phases of Motor Skill Learning*  
University of Michigan  
Hometown: Morehead, KY  
Dr. Rui Costa, Preceptor  
Laboratory for Integrative Neuroscience

**573** • Liang Zhou

*Methods for the Functional Characterization of Endocannabinoid Signaling*  
Johns Hopkins University  
Hometown: Rockville, MD  
Dr. Douglas Osei-Hyiaman,  
Ms. Judith D. Harvey-White,  
Preceptors  
Laboratory of Physiologic Studies

## **National Institute on Deafness and Other Communication Disorders (NIDCD)**

**574 • Anne Ferruggiaro**  
*Progression of Hearing Loss  
in Individuals with Enlarged  
Vestibular Aqueducts*  
University of Maryland  
Hometown: Burtonsville, MD  
Dr. Carmen Brewer, Preceptor  
Neuro-Otology Branch

**575 • Tingting Gao**  
*Exploring Canonical Wnt Signaling  
in Cochlear Development*  
Rutgers University  
Hometown: Clifton, VA  
Dr. Matthew W. Kelley, Preceptor  
Laboratory of Cellular Biology

**576 • Elizabeth Y. Rawson**  
*The Role of Canonical Motor Areas  
in Passive Reading: A Functional  
Connectivity Analysis*  
Yale College  
Hometown: Bethesda, MD  
Dr. Allen R. Braun, Preceptor  
Voice, Speech and Language Branch

## National Institute on Drug Abuse (NIDA)

- 577** • Usiwoma Abugo  
*Effect of Serum Withdrawal on Rat Mesencephalic Cells*  
University of Notre Dame  
Hometown: Abingdon, MD  
Mr: Mike McCoy, Preceptor  
Molecular Neuropsychiatry Branch
- 578** • Ta'Tiana J. Blue  
*Behavioral Effects of Gene Knockout of the Cell Adhesion Molecule*  
Chapin School  
Hometown: Brooklyn, NY  
Dr. George Uhl,  
Dr. Scott Hall, Preceptors  
Molecular Neurobiology Branch
- 579** • Stephanie D. Buie  
*SELDI-TOF-MS Protein Profiling Identifies apoC III Precursor as Prognostic Biomarker in Marijuana Abusers*  
Western School of Technology and Environmental Science  
Hometown: Gwynn Oak, MD  
Dr. Jayanthi Subramaniam, Preceptor  
Molecular Neuropsychiatry Branch
- 580** • Jennifer L. Burroughs  
*Methamphetamine Causes Caspase-8 Activation in Mouse Striatal Microglia*  
Centennial High School  
Hometown: Ellicott City, MD  
Dr. Xiaolin Deng, Preceptor  
Molecular Neuropsychiatry Branch
- 581** • Nicole Eid  
*QTc Prolongation in Polydrug Abusing HIV-positive Patients*  
University of Maryland  
School of Medicine  
Hometown: Baltimore, MD  
Dr. Kenzie Preston,  
Dr. John Schmittner, Preceptors  
Clinical Pharmacology and Therapeutics Research Branch
- 582** • Lyn M. Elias  
*Modification of Behavioral Effects of Cocaine by M1 Antagonists in Rats*  
Cleveland State University  
Hometown: Owings Mills, MD  
Dr. Jonathan L. Katz, Preceptor  
Medications Discovery Research Branch
- 583** • Oluwatosin O. Fatusin  
*Meta-analysis of Genome Wide Linkage Studies for Nicotine Dependence*  
Johns Hopkins University  
School of Medicine  
Hometown: Ellicott City, MD  
Dr. George Uhl, Preceptor  
Molecular Neurobiology Branch
- 584** • Tekara Gainey  
*Differential Effects of Opioid MU Agonists on G12 Alpha Protein Expression in CHO Cells Expressing the Cloned Human MU Opioid Receptor*  
Archbishop Prendergast High School  
Hometown: Colwyn, PA  
Dr. Heng Xu, Preceptor  
Clinical Pharmacology and Therapeutics Research Branch
- 585** • Stacy Greaver  
*Trends in Database Information Use by NIDA IRP Staff*  
Towson University  
Hometown: Baltimore, MD  
Ms. Mary Pfeiffer, Preceptor  
Clinical Pharmacology and Therapeutics Research Branch
- 586** • Jennifer L. Green  
*Behavioral Effects of Gene Knockout of the Cell Adhesion Molecule NrCAM*  
Pennsylvania State University  
Hometown: Pottstown, PA  
Dr. Scott Hall, Preceptor  
Molecular Neurobiology Branch
- 587** • Amanda E. Higley  
*Investigation of VMAT Substrates*  
Kansas State University  
Hometown: Baltimore, MD  
Dr. Richard Rothman,  
Mr. John Partilla, Preceptors  
Medications Discovery Research Branch
- 588** • Stephanie Hu  
*Worms on Speed: The Effect of Methamphetamine on Caenorhabditis elegans*  
Hunter College High School  
Hometown: Flushing, NY  
Dr. Brandon K. Harvey,  
Dr. Yun Wang, Preceptors  
Molecular Neuropsychiatry Branch
- 589** • Patrice T. Huntley  
*Methamphetamine Toxicity Causes Behavioral Impairments in BALB/c Mice*  
Palm Beach Gardens High School  
Hometown: West Palm Beach, FL  
Dr. Irina Krasnova, Preceptor  
Molecular Neuropsychiatry Branch
- 590** • Jorie L. Jones, Tiffany C. Lee  
*Different Times of Exposure to Novel Environment during Cocaine Sensitization Alter the Degree of Sensitized Cocaine-induced Locomotor Activity in Rats*  
Julia Reynolds Masterman Laboratory and Demonstration School  
Julia Reynolds Masterman Laboratory and Demonstration School  
Hometown: Baltimore, MD  
Baltimore, MD  
Dr. Bruce T. Hope, Preceptor  
Behavioral Neuroscience Branch
- 591** • Brittany E. Kelly  
*The Effects of DAT, SERT, and WET Gene Knockout on Animal Models of Depression*  
Western High School  
Hometown: Baltimore, MD  
Dr. George Uhl, Preceptor  
Molecular Neurobiology Branch

- 592** • Kamay M. Lafalaise  
*The Effects of Orbitofrontal Cortex Lesions on Food Self-administration in Rats*  
Lake Worth High School  
Hometown: Boynton Beach, FL  
Dr. Charles Schindler, Preceptor  
Behavioral Neuroscience Branch
- 593** • Michelle E. Lardeo  
*Transcriptional Responses to Reinforcing Effects of Food in the Hippocampus of Rats*  
University of Maryland,  
Baltimore County  
Hometown: Severn, MD  
Dr. Jonathan L. Katz, Preceptor  
Medications Discovery Research Branch
- 594** • Tiffany C. Lee, Jorie L. Jones  
*Environmental Modulation of Cocaine-induced ERK, PKA, and CREB Phosphorylation in Rat Brain following Context-dependent Sensitization to Cocaine*  
Julia Reynolds Masterman Laboratory and Demonstration School  
Julia Reynolds Masterman Laboratory and Demonstration School  
Hometown: Baltimore, MD  
Baltimore, MD  
Dr. Bruce T. Hope, Preceptor  
Behavioral Neuroscience Branch
- 595** • Kenneth H. Levin  
*EEG Changes during Human Cocaine Withdrawal*  
Johns Hopkins University  
Hometown: Baltimore, MD  
Dr. David Gorelick, Preceptor  
Clinical Pharmacology and Therapeutics Research Branch
- 596** • Elizabeth F. Levine-Brown  
*Age of Smoking Initiation and School Performance of Adolescents Enrolled in a Tobacco Cessation Study*  
Washington College  
Hometown: Stevensville, MD  
Dr. Eric Moolchan, Preceptor  
Clinical Pharmacology and Therapeutics Research Branch
- 597** • Yaqian Liu  
*Morphology of Glutamatergic Neurons in the VTA*  
University of Maryland  
Hometown: Chadds Ford, PA  
Dr. Marisela Morales, Preceptor  
Cellular Neurobiology Research Branch
- 598** • Yandi Lu  
*The Effects of High Doses of Methamphetamine on Tyrosine Hydroxylase (TH) Immunoreactivity in BMP Receptor II Dominant Negative Mice*  
Suncoast Community High School  
Hometown: Baltimore, MD  
Dr. Brandon K. Harvey,  
Dr. Yun Wang, Preceptors  
Molecular Neuropsychiatry Branch
- 599** • Samantha Luo  
*Viral Vector-mediated Expression of Potassium Channels Kv4.2 and Kv1.4 in a Rodent Model of Stroke*  
Centennial High School  
Hometown: Ellicott City, MD  
Dr. Brandon K. Harvey, Preceptor  
Molecular Neuropsychiatry Branch
- 600** • Jennifer P. Miles  
*Interactions of Salvinorin A Analogs with Opioid Receptors*  
Grambling State University  
Hometown: Grambling, LA  
Dr. Richard Rothman, Preceptor  
Medications Discovery Research Branch
- 601** • Catherine E. Norise  
*The Effects of in utero Methamphetamine Exposure on the Neurochemistry of Rat Pup*  
Whitney M. Young Magnet High School  
Hometown: Chicago, IL  
Dr. Pierre-Antoine H. Noailles, Preceptor  
Molecular Neuropsychiatry Branch
- 602** • Eziaku I. Ogbonna  
*Methamphetamine Induces Dopamine Depletion and Apoptosis in Olfactory Bulb*  
Morgan State University  
Hometown: Baltimore, MD  
Dr. Irina Krasnova, Preceptor  
Molecular Neuropsychiatry Branch
- 603** • Prachi T. Patel  
*Alcohol Use and Developmental Trajectory of Cigarette Smoking among Adolescents Enrolled in a Smoking Cessation Study*  
Drexel University  
Hometown: Irvine, CA  
Dr. Eric Moolchan,  
Dr. Maria Gasior, Preceptors  
Clinical Pharmacology and Therapeutics Research Branch
- 604** • Emir Tyrone P. Penserga  
*A Modified AAV Vector for Facilitated Cloning and Cell-specific Gene Expression*  
Suncoast Community High School  
Hometown: Baltimore, MD  
Dr. Brandon K. Harvey, Preceptor  
Molecular Neuropsychiatry Branch
- 605** • Kyle Rothman  
*Caspase-8 Up-regulation Occurs In Methamphetamine-treated Mouse Brain: Evidence from Immunohistochemical Staining*  
Glenelg Country School  
Hometown: Ellicott City, MD  
Dr. Xiaolin Deng, Preceptor  
Molecular Neuropsychiatry Branch
- 606** • Steven A. Schech  
*Brain Activation during Affective Manipulations*  
Mount Saint Mary's University  
Hometown: Baltimore, MD  
Dr. Betty Jo Salmeron, Preceptor  
Neuroimaging Research Branch

**607 • Imran S. Sheikh**  
*The Selective Dopamine D3 Receptor Antagonist SB33138-1 Inhibits Cocaine-triggered Reinstatement of Drug-seeking Behavior in Rats*  
Central High School  
Hometown: Philadelphia, PA  
Dr. Zheng-Xiong Xi,  
Dr. Eliot L. Gardner, Preceptor  
Behavioral Neuroscience Branch

**608 • Mike Sherling**  
*Developmental Profile of Long-term Potentiation in CBI-knockout Mice*  
Washington University in St. Louis  
Hometown: Baltimore, MD  
Dr. Carl Lupica,  
Dr. Alex Hoffman, Preceptors  
Cellular Neurobiology Research Branch

**609 • Kristina Wihbey**  
*Effect of the Gut Peptide PYY (3-36) on Reinstatement of Food and Heroin Seeking in Rats*  
Franklin & Marshall College  
Hometown: Orono, ME  
Dr. Yavin Shaham, Preceptor  
Behavioral Neuroscience Branch

**610 • Sheng P. Xu**  
*The Selective Dopamine D3 Receptor Antagonist SB-277011A Inhibits Incubation of Cocaine Craving in Cocaine Withdrawal Rats*  
University of Rochester  
Hometown: Palisades Park, NJ  
Dr. Xia Li, Preceptor  
Behavioral Neuroscience Branch

**611 • Mu Yang**  
*Controls for Whole Genome Association: Clustered Single Nucleotide Polymorphisms That Display Allele Frequency Differences between Baltimore Research Volunteers of Different Self-reported Ethnicities*  
Swarthmore College  
Hometown: Ellicott City, MD  
Dr. Tomas Drgon, Preceptor  
Molecular Neurobiology Branch

## **National Library of Medicine – Lister Hill National Center for Biomedical Communications (NLM-LHNCBC)**

**612** • Srikanth Divi

*Interactive Web-based Image*

*Segmentation Using LiveWire*

*and Active Contour Algorithms*

Johns Hopkins University

Hometown: Germantown, MD

Dr. Sameer Antani, Preceptor

Communications Engineering Branch

## **National Library of Medicine – Center for Biotechnology Information (NLM-NCBI)**

**613** • Evan Cording  
*Mapping Gene Ontologies  
onto Human and Mouse Gene  
Expression Networks*  
Haverford College  
Hometown: Savannah, GA  
Dr. Leonardo Marino-Ramirez,  
Dr. King I. Jordan, Preceptors  
Computational Molecular  
Biology Branch

## NIH Clinical Center (CC)

**614** • Adebimpe A. Adegbenro  
*Safety and Efficacy of Faropenem as an Adjuvant Therapy in Pulmonary Mycobacterium abscessus Infection*  
University of Maryland  
School of Pharmacy  
Hometown: Gwynn Oak, MD  
Dr. Melinda Nehauser, Preceptor  
Pharmacy Department

**615** • Dipan D. Amin  
*Evaluation of Surface Coils for Skin Imaging*  
Damascus High School  
Hometown: Clarksburg, MD  
Dr. David Thomasson, Preceptor  
Diagnostic Radiology Department

**616** • Daveta L. Bailey  
*Clinical Excellence: A New Approach to Pediatric Oncology Nursing Expectations through Exceptional Care*  
East Carolina University  
Hometown: Oxon Hill, MD  
Mr. Christopher Egelebo, Preceptor  
Nursing Department

**617** • Maria G. Balarezo  
*Microarray Background Correction and Normalization*  
Gaithersburg High School  
Hometown: Gaithersburg, MD  
Dr. James DeLeo,  
Dr. Carl Leonard, Preceptors  
Department of Clinical  
Research Informatics

**618** • Zachary A. Borman  
*Immunophenotypic Profile and KIT D816V Mutational Analysis of Two Subclones of HMC-1 Human Mast Cell Line*  
St. Mary's College of Maryland  
Hometown: Bethesda, MD  
Dr. Irina Maric, Preceptor  
Department of Laboratory Medicine

**619** • Bettina M. Burgett  
*Nitric Oxide Regulation of PPAR-gamma-mediated Signaling Pathway and Gene Expression in Endothelial Cells through the Activation of p38 MAPK and Erk 1/2*  
Princeton University  
Hometown: Bethesda, MD  
Dr. Robert L. Danner,  
Dr. Anetta Ptasinska, Preceptors  
Critical Care Medicine Department

**620** • Jesus J. Caban, Kryt Chattrabhuti  
*CAD for Lung Fibrosis*  
University of Maryland  
Johns Hopkins University  
Hometown: Baltimore, MD  
Sherman Oaks, CA  
Dr. Jack Yao, Preceptor  
Diagnostic Radiology Department

**621** • Kryt Chattrabhuti,  
Jesus J. Caban  
*CAD of Breast Cancer on Dynamic MRI*  
Johns Hopkins University  
University of Maryland  
Hometown: Sherman Oaks, CA  
Baltimore, MD  
Dr. Suvimol Hill,  
Dr. Jack Yao, Preceptors  
Diagnostic Radiology Department

**622** • Jason A. Chen  
*Evaluating the Usability of a Visual Display for Interdisciplinary Problem Documentation among Clinicians*  
Kirksville College of Osteopathic Medicine  
Hometown: McLean, VA  
Ms. Charlotte Seckman,  
Dr. Carol Romano, Preceptors  
Department of Clinical Research  
Informatics

**623** • Yue Cui, Julie E. Horowitz  
*The Effect of Lipopolysaccharide on Cytokine Profiles in Mice Lacking Neuronal Nitric Oxide Synthase*  
Montgomery Blair High School  
New College of Florida  
Hometown: Germantown, MD  
Bethesda, MD  
Dr. Zenaide Quezado, Preceptor  
Department of Anesthesia and  
Surgical Services

**624** • Lashea N. Davis  
*Ligands and Reactivity of Unpaired Cysteine Residues in Plasma Proteins*  
Meharry Medical College  
Hometown: Nashville, TN  
Dr. Glen Hortin, Preceptor  
Department of Laboratory Medicine

**625** • Alia Durrani  
*Image-guided Therapy and Multi-modality Tools for the OR Suite of the Future*  
Vanderbilt University  
Hometown: Cincinnati, OH  
Dr. Bradford J. Wood, Preceptor  
Diagnostic Radiology Department

**626** • Katherine J. England  
*Pneumocystis jirovecii: MSG Protein Expression in Saccharomyces cerevisiae*  
University of Maryland  
Hometown: Bethesda, MD  
Dr. Joseph A. Kovacs, Preceptor  
Critical Care Medicine Department

**627** • Shari P. Feirman  
*Planning for a New Metabolic Unit: Nutrition Needs and Risk Assessment*  
Washington University in St. Louis  
Hometown: Potomac, MD  
Ms. Madeline A. Michael, Preceptor  
Nutrition Department

**628** • Aubrey T. Francisco  
*Utilizing Static and Dynamic MR Images to Quantify Femur Shape Deformation and Knee Joint Cartilage Contact of Cerebral Palsy Patients*  
Syracuse University  
Hometown: Amsterdam, NY  
Dr. Frances T. Gavelli, Preceptor  
Rehabilitation Medicine Department

**629** • Farahnaz Hassanshahi,  
Leticia C. Dominguez  
*Bridging the Language Gap: Strengthening Communication*  
Connelly School of the Holy Child  
Watkins Mill High School  
Hometown: Rockville, MD  
Montgomery Village, MD  
Dr. Migdalia V. Rivera-Goba, Preceptor  
Nursing Department

**630** • Daniel J. Helman  
*Expression and Purification of the Major Surface Glycoprotein of Pneumocystis murina*  
Amherst College  
Hometown: Bethesda, MD  
Dr. Joseph A. Kovacs, Preceptor  
Critical Care Medicine Department

**631** • Mathew P. Hoppe,  
Ana M. Reyes-Albarracin  
*A Snapshot of Wait Time in the Outpatient Setting*  
George Mason University  
Richard Montgomery High School  
Hometown: Fairfax, VA  
Rockville, MD  
Ms. Fran C. Loscalzo, Preceptor  
Nursing Department

**632** • Johnny Jesson  
*Temperature Distributions during Pulsed High-intensity Focused Ultrasound for Enhanced Drug and Gene Delivery*  
Walla Walla College  
Hometown: Silver Spring, MD  
Dr. Anthony W. Kam, Preceptor  
Diagnostic Radiology Department

**633** • Jenifer E. Jesson  
*Normal Regional Fractional Anisotropy and Apparent Diffusion Coefficient of the Brain on 3T*  
Shenandoah Valley Academy  
Hometown: Silver Spring, MD  
Dr. Eva Baker,  
Dr. David Thomasson, Preceptors  
Diagnostic Radiology Department

**634** • Susan Jin  
*Building Communities with Websites, Listservers, and Blogs*  
Richard Montgomery High School  
Hometown: North Potomac, MD  
Dr. James DeLeo,  
Dr. Carl Leonard, Preceptors  
Department of Clinical  
Research Informatics

**635** • Robert E. Jinkerson  
*Electromagnetically Tracked Devices in the OR Suite of the Future*  
University of Missouri  
Hometown: Florissant, MO  
Dr. Bradford J. Wood, Preceptor  
Diagnostic Radiology Department

**636** • Alexander R. Kent  
*Mathematical Model of Knee Hypertonia in Children with Cerebral Palsy*  
University of Pennsylvania  
Hometown: Bethesda, MD  
Dr. Maria K. Lebedowska, Preceptor  
Rehabilitation Medicine Department

**637** • Christine F. Lauro  
*Anesthetic Considerations in Children and Adolescents with NOMID*  
New Jersey Medical School  
Hometown: Wyckoff, NJ  
Dr. Zenaide Quezado,  
Dr. Virginia Besch, Preceptors  
Department of Anesthesia and  
Surgical Services

**638** • Charles Q. Li  
*Recognition of Motion Artifacts on CT Colonography*  
University of Pennsylvania  
Hometown: North Potomac, MD  
Dr. Ronald M. Summers, Preceptor  
Diagnostic Radiology Department

**639** • Casey Means  
*Effect of Cellular Microparticles in Sickle Cell Anemia Patients on Thrombin Generation*  
Stanford University  
Hometown: Washington, DC  
Dr. McDonald Horne, Preceptor  
Department of Laboratory Medicine

**640** • David G. Mummy  
*Development of a Flexible SPECT OS-EM Image Reconstruction Software Package to Allow Rapid Implementation of New Resolution Recovery Algorithms*  
Whitman College  
Hometown: Issaquah, WA  
Dr. Roberto Maass, Preceptor  
Nuclear Medicine Department

**641** • Hemanth Ramaprakash  
*Regulatory Role of Histone Deacetylase (HDAC) in mRNA Stabilization*  
University of Michigan  
Hometown: Shelby Township, MI  
Dr. Robert L. Danner,  
Dr. Shuibang Wang, Preceptors  
Critical Care Medicine Department

**642** • Alex A. Robinson  
*SWAT Report Manual*  
Catholic University of America  
Hometown: Washington, DC  
Ms. Adrienne Farrar, Preceptor  
Social Work Department

**643** • Elisa S. Schrank  
*The Existence of Pure Strength  
Substitution When Using an AFO*  
University of Virginia  
Hometown: Rockville, MD  
Dr. Steven J. Stanhope, Preceptor  
Rehabilitation Medicine Department

**644** • Lauren H. Smith  
*Preliminary Investigations into the  
Mechanisms of Pulsed High-intensity  
Focused Ultrasound Enhanced Delivery*  
Northwestern University  
Hometown: Gaithersburg, MD  
Dr. Victor Frenkel, Preceptor  
Diagnostic Radiology Department

**645** • Mara E. Steinberg  
*Campath, A Novel Therapy for  
Inclusion Body Myositis: Oral Motor,  
Speech, and Swallowing Outcomes  
Six Months Post Treatment*  
George Washington University  
Hometown: Woodbury, NY  
Ms. Beth I. Solomon, Preceptor  
Rehabilitation Medicine Department

**646** • Maria Jonah Elaine C. Tan  
*Evaluation of Atypical Antipsychotics  
and Metabolic Syndrome in Patients  
with Schizophrenia*  
Ernest Mario School of Pharmacy  
at Rutgers University  
Hometown: New Jersey, NJ  
Dr. Gerald Overman, Preceptor  
Pharmacy Department

**647** • Lauren E. Troxel, Michelle Amaya  
*Are They Useful? An Assessment of  
Patient Transfer Device Efficacy*  
University of Maryland  
High Point High School  
Hometown: Mount Rainier, MD  
Beltsville, MD  
Ms. Pamela Koviack,  
Ms. Ann Mulqueen, Preceptors  
Nursing Department

**648** • Felicia A. Washington  
*Intervention to Decrease Lymphedema  
in Breast Cancer Patients*  
University of Maryland  
School of Medicine  
Hometown: Baltimore, MD  
Mr. Charles L. McGarvey, Preceptor  
Rehabilitation Medicine Department

**649** • Karen Wong  
*Targeting Tumor Angiogenic Vasculature  
Using Integrin Alpha5beta3 Targeted  
Nanoparticles by a Dynamic Optical  
Fiber-based Confocal Microscope*  
Drexel University School of Medicine  
Hometown: Montgomery Village, MD  
Dr. King Li,  
Dr. Jianwu Xie, Preceptors  
Diagnostic Radiology Department

**650** • Eric J. Wu  
*3D Kinematic Analyses of Mandibular  
Function Using the Zebris JMA-WinJaw  
System: Preliminary Results*  
Duke University  
Hometown: Montgomery Village, MD  
Dr. Jeri L. Miller, Preceptor  
Rehabilitation Medicine Department

## **Office of the Director/Office of Intramural Research (OD/OIR)**

**651** • Francesca I. Decker

*Evaluation of NIH IRP Procedures  
on Informed Consent for Non-English  
Speaking Subjects*

Cornell University

Hometown: Alexandria, VA

Dr. Alison Wichman, Preceptor

Office of Human Subjects Research

## Index of Participants

Benjamin M. Aakre	297	Cecil Benitez	451	Jason A. Chen	622
Usiwoma Abugo	577	Melissa A. Berg	143	Michael Z. Chen	525
Douglas J. Adams	269	Stephen L. Berger	519	Rachel Chen	160
Adebimpe A. Adegbenro	614	Elizabeth L. Berry	452	Tianli Chen	305
Niraj K. Agarwalla	159	Monica L. Bertoia	144	Yun-Yun K. Chen	234
Vinay K. Aggarwal	231	Sarah Bettigole	270	Mei-Hsin Cheng	306
Nikita Agrawal	12	Mia Bjelogric	453	Christopher F. Chesley	180
Chidi Ahaghotu	298	Carolyn Black	271	Pui W. Cheung	156
Daniel Ahmad	299	Chelsea M. Black	23	Katherine B. Chiappinelli	107
Bernadine Akukwe	13	Madeleine M. Blank	145	Daniel Chien	235
Adrian A. Alday	403	Kevin G. Blas	24	Haena S. Cho	407
Ali Alim-Marvasti	444	Ta'Tiana J. Blue	578	Prajna Chopra	408
Kristin Allgood	445	Katharine O. Boles	520	Afrin R. Chowdhury	220
Michelle Amaya	647	Zachary A. Borman	618	Charlotte Y. Chung	272
Leila J. Ameli-Grillon	404	Ethan R. Bornstein	261	Laura Ciaccia	273
Dipan D. Amin	615	Sarah M. Bourdon	454	Billy M. Clifford-Nunn	368
Jessica C. Amlin	14	Adam L. Brandt	25	Adam G. Cockell	28
Melis N. Anahtar	217	Phebe L. Brenne	455	Alan Cole	181
Theonine Anastassiasdis	15	Clair Briggs	406	Natasha L. Coleman	182
Sruthi R. Arepalli	300	Nisha M. Broodie	13	Jessica Conjour	517
Kimbia L. Arno	232	Hakeenah F. Brown	521	Mary Conlon	401
Brook Asamenew	356	Martha F. Brucato	456	Megan E. Conroy	161
Jeremiah Asante	16	Kelly E. Buckholdt	457	Omar A. Contreras	369
Benjamin A. Ashwell	17	Stephanie D. Buie	579	Kizzmekia S. Corbett	262
Shannon E. Auxier	446	Atum M. Buo	366	Evan Cording	613
Philip D. Avigan	447	Bettina M. Burgett	619	Karen E. Cress	29
Nader A. Ayub	18	Lorri-Anne F. Burke	303	Caelin A. Cubenas	236
Natalie Baggett	19	Tyesha N. Burks	522	Luciann L. Cuenca	30
Daveta L. Bailey	616	Anthony J. Burnett	218	Yue Cui	623
Brandon J. Baird	20	Jennifer L. Burroughs	580	Matthew A. Cunningham	162
Alyssa C. Baker	448	Tracy R. Butler	458	Malissa da Graca	518
Maria G. Balarezo	617	Jesus J. Caban	620, 621	Julien Dagenais	460
Gabriel N. Band	405	Daniel Camacho	523	Kelly R. Daigle	526
Michael L. Baran	449	Jason L. Campbell	26	Tu D. Dan	31
Karine D. Barnes	21	Sarah L. Carman	146	Hong T. Dang	32
Matthew Baron	301	Robert J. Carrasquillo	304	Joseph P. Daniels	163
Rebecca S. Barrett	233	Ricardo J. Carrero	367	Kristen M. Danley	33
Jo Barta	450	Meredith A. Chambers	459	Lashea N. Davis	624
Emily S. Bartlett	363	Sydney Chang	179	Marshall L. Davis	461
Kyle Basques	302	Yunyoung C. Chang	524	Hannah R. Day	527
Caitlin E. Baum	22	Kryt Chattrabhuti	620, 621	Mark C. DeBlois	528
Brian D. Belardi	364	David Chen	27	Francesca I. Decker	651
Amanda B. Bell	365	Hway Helen Chen	219	Brooke G. Deckert	307

Sean T. DeGrande	263	Allison R. Finger	186	Heraa S. Hajelsafi	320
Lisa M. DeGregoris	370	Alexander H. Fischer	41	Shakeeb Z. Hakim	50
John Oliver L. DeLancey	147	Phillip J. Fitzgerald	357	Hope E. Hamrick	239
Merlyn Deng	34	Katie M. FitzGibbon	164	Andrew C. Harbin	416
Lena Derani	462, 489	Cecilia C. Fix	410	Rebecca A. Hardy	51
Emily Devlin	221	Faith E. Fletcher	224	Nicholas B. Harell	372
Ashley L. Devonshire	529	Vanessa J. Flores	187	Leah E. Harford	52
Namisha K. Dhillon	308	Katelyn E. Foley	313	Kendra Harris	535
Carl M. DiCasoli	183	Nicholas G. Francella	42	Patrice N. Harris	536
Christopher Digesu	371	Aubrey T. Francisco	628	Farahnaz Hassanshahi	629
Jennifer DiMuro	237	Margaret A. Fraser	314	Christina Hatch	417
Andrew O. Ding	309	Amanda D. French	533	Belinda R. Hauser	537
Srikanth Divi	612	Chadd M. Funk	315	Michael R. Haynes	418
Ashley Dixon	142	Jamie C. Gabriel	411	Janice J. He	321
David H. Do	409	Anna Gabrielian	316	Timothy X. He	419
Alexandra L. Dobkin	6	Tekara Gainey	584	Solveig Helgadottir	53
Leticia C. Dominguez	629	Arun Ganesh	317	Randi Heller	487
Janice E. Dorbu	222	Tingting Gao	575	Daniel J. Helman	630
Alia Durrani	625	Travis Gayles	148	Amanda E. Higley	587
Ian P. Dusenberry	223	David A. Germain	318	Marcda E. Hilaire	264
Lauren S. Dutcher	35	Azam Ghafoor	43	Tina Ho	54
Benjamin D. Easter	310	Amanda K. Gibson	238	Nathaniel Hodgson	373
Michelle C. Eckman	274	Taylor Gilliland	44	Aaron R. Hoffman	55
Ayaboe K. Edoh	463	Juan M. Giugale	412	Haley V. Holden	165
Daniel J. Edwards	311	Lauren A. Glover	45	Gelareh Homayounfar	189
Beeta Ehdaie	36	Allie S. Gold	413	Ellie S. Hong	56
Nicole Eid	581	Matthew L. Goldman	188	Mathew P. Hoppe	631
Cecilia Ekperi	37	Audra L. Gollenberg	319	Julie E. Horowitz	623
Lyn M. Elias	582	Ian J. Goodfellow	464	David Y. Hu	322
Ekaterina A. Eliseeva	312	Mercede E. Gorham	414	Stephanie Hu	588
Chineye D. Emeche	530	Emily M. Gottlieb	225	Yin Huang	374
Katherine J. England	626	Ksenia Gouliaeva	46	David M. Huberdeau	420
Divya Enika	531	Stacy Greaver	585	Katie E. Hughes	467
Joshua E. Erlandsen	532	Jennifer L. Green	586	Alexander Y. Hui	375
Benjamin H. Espina	38	Emily E. Greenberger	465	Stephen Hung	323
Nicholas L. Evoy	184	Sarah M. Greenblatt	47	Patrice T. Huntley	589
Salma Faghri	39	Emma D. Griffin	415	Fatima A. Hussain	25
Carolina E. Fasola	40	Caitlin E. Griffith	466	Linda Huynh	240
Oluwatosin O. Fatusin	583	Natalie Guerrero	48	Charles W. Hwang	190
Shari P. Feirman	627	Xuelei Guo	49	Yessenia M. Ibarra	468
Patrick Feng	2	Tanvi Gupta	7	Gregory H. Ihrle	421
Anne Ferruggiaro	574	Ana L. Gustafson	534	Inga L. Ingvarsdottir	57
Jerad A. Fields	185	Elizabeth Guzman-Morales	149	Dominic M. Ippolito	469

Cristina Irimia	58	Courtney S. Kiphart	242	Philip Loscombe	74
Miriam B. Ishak	150	Katie B. Knoedelseder	474	Christine Louie	244
Vijeth Iyengar	470	Kathleen E. Knudson	296	Geoffrey A. Lovely	197
Sudeh Izadmehr	324	Pin-Yi Ko	475	Andrew J. Lu	75
Jennifer L. Jacobi	275	Katherine E. Korelitz	422	Yandi Lu	598
Shafaq Jameel	538	Amy Kuceyeski	476	Jessica G. Lue	245
Alicia L. Janos	567	Matthew B. Kuehn	377	Cristina Luiggi	546
Patrick Jean Baptiste	59	Natalia R. Kuhn	227	Samantha Luo	599
Kevin S. Jenner	276	Anant Kumar	378	Xu Luo	547
Jenifer E. Jesson	633	Shweta S. Kumar	423	Rami S. Maarouf	76
Johnny Jesson	632	Prantik Kundu	477	Jennifer J. Macdonald	379
Baijia Jiang	471	Kwame S. Kutten	194	Ian M. MacDougall	265
Bing Jiang	241	Veena K. Kutty	166	Laurel Macey	380
Susan Jin	634	Gunnar F. Kwakye	542	Scott M. Mackenzie	424
Robert E. Jinkerson	635	Rachelle La Porte Bogle	277	Jessica Maglione	266
Courtney M. Johnson	60	Kamay M. Lafalaise	592	Anu S. Maharjan	328
Adrienne K. Jones	539	Sudesna Lakshman	69	Kathryn N. Maher	329
Erica N. Jones	61	Michelle E. Lardeo	593	Brittney A. Manvilla	280
Gi'Eira S. Jones	226	Christine F. Lauro	637	Mandana T. Manzari	425
Jorie L. Jones	590, 594	Annie M. Le	278	Marcos A. Mar	426
Amy Joshi	62	Daniel J. Lee	478	Joelle Marble	481
Jaynann Juhasz	568	Grace C. Lee	70	Elise M. Marshall	482
Dignamartha Kakkanattu	3	Tiffany C. Lee	590, 594	Keith Marsolo	198
Christopher L. Kalmar	191	Natalie L. Leong	279	Jenna B. Martin	483
David F. Kamara	540	Rebecca LePrell	326	Tahira A. Mathen	168
Teddy T. Kamata	63	Jay H. Levin	327	Priya M. Mathews	77
Shiva Kambhampati	569	Kenneth H. Levin	595	Monika Mathur	78
Aditya Kanesa-Thanan	64	Elizabeth F. Levine-Brown	596	Raghav R. Mattay	427
Eugene Kang	65	Marcus E. Lewis	543	Everlee H. McCabe	381
Shelby A. Kaplan	472	Charles Q. Li	638	Juanita McCarter	382
Sarah M. Karl	192	Dayan Li	71	Mara K. McCawley	79
Alexis R. Karlin	193	Randolph Li	243	Donnetta S. McFadden	548
Turan A. Kayagil	473	Yaojiefu J. Li	195	Adrienne E. McGill	330
Steven Kebejian	541	Joshua I. Lieberman	479	Elizabeth E. McGinn	199
Ryan A. Keefe	376	Kimberly S. Limentani	72	John E. McManigle	281
Meggan L. Keller	66	Robert U. Linnoila	73	Drew McUsic	200
Brittany E. Kelly	591	David B. Lipps	196	Casey Means	639
Michael G. Kennedy	67	Denisha R. Little	544	Gautam U. Mehta	484
Alexander R. Kent	636	Clive K. Liu	167	Minal Mehta	80
Sara Khaghani	151	Ran Liu	480	Mohit Mehtani	169
Bo-kyu Kim	68	Richard C. Liu	545	Michelle Mendelsohn	428
Gabriel M. Kim	8	Yaqian Liu	597	Gabriel E. Merlin	549
Anat Kimchi	325	Joyce M. Lo	417	Hillery C. Metz	485

Justin P. Meunier	157	Rachael Norman	88	Hemanth Ramaprakash	641
Jennifer P. Miles	600	Sarah K. Nutman	284	Abigail J. Rao	500
Nathan Miletta	486	Stephen S. O'Connor	430	Sucheta S. Ravindran	433
Tyler C. Miller	331	Timothy D. O'Connor	494	Elizabeth Y. Rawson	576
Brendan H. Milliner	487	Eziaku I. Ogbonna	602	Todd W. Regnier	388
Victoria L. Mills	383	Bode Ogunwole	285	Anne Reiner	152
Aaron Miracle	488	Obehi Okojie	286	Nina Ren	252
Vibha Mishra	462, 489	Oluwadamilola T. Oladeru	248	Ana M. Reyes-Albarracin	631
Maanasi S. Mistry	334	Sarah J. Omenitsch	249	Amber Riblett	96
Isaac Mizrahi	81	Steven E. Ovu	202	Kadeem Y. Richardson	501
Chinedu Mmeje	201	Yang Pan	203	Shannon Roberson	556
Sara Moghaddam-Taaheri	170	Narendra C. Panapitiya	495	Alex A. Robinson	642
Jennifer E. Monroe	158	Brian S. Park	570	Candace A. Robledo	341
Jason P. Moran	332	Monica Passi	358	Christine Roche	97
Valerie S. Morash	490	Bhumi K. Patel	89	Victoria A. Rodriguez	502
Howard W. Morris	429	Chiraag D. Patel	5	Tierney Rogers	408
Matthew C. Morris	491	Niraj R. Patel	553	Giselle Roman Hernandez	98
Angel N. Morrow	246	Prachi T. Patel	603	Sanna D. Ronkainen	99
Felix Moser	247	Scott M. Paviol	496	Andre D. Rosario	100
Omid Motabar	550	Patrina A. Pellett	384	Kevin I. Rosenberg	173
Bassim S. Mousa	82	Josefa Pena	338	Benjamin Rosenfeld	434
Daphne Moutsoglou	168, 171	Emir Tyrone P. Penserga	604	Anna Rossovsky	342
Anudeep Mukkamala	83	Judit M. Perez	554	Kyle Rothman	605
Sunni L. Mumford	333	Jennifer M. Pettiford	90	Victoria Rudd	503
David G. Mummy	640	Candice M. Pfister	91	Sara G. Sadiq-Ali	205
Maureen O. Murphy-Ryan	334	Tienlong N. Pham	92	Dalia Saha	174
Reut Mushkat	492	Rachel M. Pierce	93	Maiko Sakai	359
Peter N. Myers	84	Clifford A. Pierre	385	Sarah L. Sammons	101
Arpun Nagaraja	551	Yuval Pinto	204	Rajeev Samtani	175
Rajesh Narasimha	85	Joshua J. Plant	94	Sonia Samtani	175
Maria B. Navarro	4	Jonathan D. Pool	250	Zalya Sanchez-Galvan	206
Obioma Ndubizu	335	Rita Poon	95	Michelle Sarin	504
Diana Nemeh	493	Colin A. Powers	386	Ankita Saxena	557
Evora J. Newby	86	Elaine Pranski	555	Steven A. Schech	606
Priscilla Nez	142	Emily A. Prentice	497	Patrick C. Schottel	435
Thoi Ngo	336	Victor G. Prikhodko	251	Elisa S. Schrank	643
Hanh H. Nguyen	552	Vasthie Prudent	387	Apryl S. Scott	102
My-Le Nguyen	172	Margaret R. Pruitt	339	Jeanne K. Seeberger	558
My-Linh T. Nguyen	87	Abhishek Pulla	431	Kimberly M. Seibert	436
Vina H. Nguyen	337	Audrey L. Quinn	340	Sonia Sekhar	176
Andrew D. Nicholson	282	Steven J. Quinn	498	Heather M. Selby	103
Matt M. Niemeyer	283	Gabriella I. Ra'anan	432	Daniel R. Selvig	207
Catherine E. Norise	601	Christina Rabinak	499	Ali N. Shabestari	343

Anjali Shah	437	Rebecca J. Stevens	347	Dena Vander Tuig	352
Victoria Sheen	153	John T. Stranix	508	Lidenys C. Varela	267
Imran S. Sheikh	607	Nicholas Streicher	115	Sarinnapha Vasunilashorn	563
Michael J. Shen	505	Jacqueline Stroncek	212	Rahul Venkateshwara	353
Susan Q. Shen	104	Shivani Sud	116	Grant L. Verstandig	127
Ashish Shenoy	105	Jay E. Sulek	361	Michelle M. Viola	571
Mike Sherling	608	Janay C. Sullivan	292	Reena P.Vishwanath	128
Melody Y. Shi	389	Lakeisha E. Summers	117	Paul Waltz	154
Christine Shieh	402	Andrew Y. Sun	391	Eddie C. Wang	393
Brian Shiu	344	Di Sun	177	James Y. Wang	394
Eli D. Shoham	9	Giun Sun	11	Sydney Wang	135
Sami A. Siddiqui	1	Mary Beth Sutter	348	Nathaniel F. Ware	395
Karen L. Sidransky	390	Emily P. Sutton	118	Digna Washington	129
Nicholas J. Siebenlist	287	Daniel Suzman	255	Felicia A. Washington	648
Steven J. Siegel	253	Ali Syed	560	Lisa M. Watanabe	354
Jaskaran Singh	288	Maria Jonah Elaine C. Tan	646	Charlotte A. Watts	511
Rahul Singh	106	Kevin S. Tang	213	Dan E. Webster	130
Rajat Singh	254	Raluca T. Tavaluc	561	Michael A. Weinreich	155
Rishi P. Singh	208	Dmitry Tchapynikov	214	Rebecca B. Weinstein	331
Sumegha K. Singhania	107	Modupe M. Teniola	119	Julia K. Wessel	441
Nirmish Singla	506	Silpa Thavalappil	120	Suzanne H. Westbrook	178
Shobhit Singla	108	John M. Thomas	121	Luke M. Whalen	131
Ginger C. Slack	209	Joanna K. Timmer	256	Christine N. White	572
Vladimir A. Slesarev	109	Niket Todi	293	Isabela T. Wiczorek	295
Lauren H. Smith	644	Selen G. Tolu	440	Kristina Wihbey	609
Andrew D. Snyder	507	Nicholas M. Tompkins	349	Erika K. Williams	512
Benjamin J. Sobel	289	Michael J. Torres	122	Reginald L. Williams	132
Hilda M. Sola-Soto	110	Brooke E. Tortorella	509	Lauren E. Wilson	564
Ben D. Solomon	290	Elena Tous	215	Benjamin Y. Winer	129
Gordon E. Sommers	438	Nancy J. Tray	123	Noah A. Wolfson	216
Christina Son	111	Tuan A. Trinh	124	Joseph Wolken	396
Natalie M. Sorbello	360	Lauren E. Troxel	647	Karen Wong	649
Edgardo Sosa	210	Maria I. Trujillo	362	Michelle S. Wong	133
Sonia Soto	112	C. Jillian Tsai	350	Danyi Wu	268
Natalya K. Sousa	113	Joanna Tsai	294	Eric J. Wu	650
Chantal Y. Spencer	345	Lillian L. Tsai	125	Min H. Wu	513
Jacob Spinner	211	Sean W. Tsao	562	Yueh-Yi (Gloria) Wu	134
Aubrey L. Spriggs	346	Maya Tuchman	228	Jacqueline A. Wulu	135
Amber R. Spring	114	Claire M. Twark	510	John B. Xia	514
Jeff Stambough	291	Olivia Twu	392	Sheng P. Xu	610
Jonathan S. Steer	559	Zachary W. Ulissi	351	Victoria V. Yakovleva	515
Mara E. Steinberg	645	Amara C. Unegbu-Ogbonna	126	Youkuan Yan	257
Stephanie L. Stephens	439	Sefanit Urgessa	305	Bin Q. Yang	136

Mu Yang	611
Wan J. Yang	516
Chenhui Yao	137
Minmin Yen	138
Terry C. Yin	397
Colette C. Young	398
Christine Yu	139
Christine K. Yu	139
Derek H. Yuan	565
Daniel J. Zabransky	140
Laura Zaim	258
Joseph Zakhari	120
Skye Zeller	399
Bixi Zeng	141
Katherine Zhang	229
Mona Zhang	10
Philip F. Zhang	355
Shan Zhao	400
John C. Zhou	230
Liang Zhou	573
Shiwei Zhou	442
Victor Z. Zhu	259
Wenjia Zhu	260
Devin A. Zibulsky	443
Yixiao Zou	566

## Index of Educational Institutions of Participants

Albert Einstein High School	305
Amherst College	58, 238, 487, 630
Andover High School	506
Archbishop Prendergast High School	584
Arizona State University	96, 246
Barnard College	176
Bethesda Chevy Chase High School	436, 438
Bishop Hoban High School	403
Boston College	376
Boston University	81, 166, 231, 273
Brandeis University	216
Brigham Young University	494, 568
Brody School of Medicine, East Carolina University	472
Brown Medical School	39, 174
Brown University	327, 513, 534
Bryn Mawr School	433
Bucknell University	33, 459
California Academy of Mathematics and Science	112, 114
California Institute of Technology	104
California State University, Chico	571
Calvin College	352
Cambridge University (UK) – Massachusetts Institute of Technology (MIT) Exchange	444
Carnegie Mellon University	364, 423, 480
Case Western Reserve University	75, 476
Catholic University of America	30, 199, 430, 642
Centennial High School	557, 580, 599
Central High School	607
Central Michigan University	192
Chapin School	578
Charles E. Jordan High School	116
Charles E. Smith Jewish Day School	325, 432, 479
Chicago College of Osteopathic Medicine	158
Cinnaminson High School	126
Claflin University	117
Cleveland State University	582
Colby College	221
College of the Holy Cross	360
College of William and Mary	54, 65, 129, 140, 439, 509
Colorado State University	349
Columbia University	229, 410, 447
Columbia University School of Engineering and Applied Sciences	279

Concordia College	297
Connelly School of the Holy Child	629
Cornell University	108, 155, 212, 247, 290, 291, 295, 363, 567, 651
Dallas Baptist University	122
Damascus High School	615
Dartmouth College	315, 399
Dartmouth Medical School	500
Davidson College	469
Delhi University	254
DeMatha Catholic High School	491
Detroit Country Day School	230
Drexel University	603
Drexel University School of Medicine	649
Duke University	111, 159, 177, 189, 211, 257, 334, 339, 456, 473, 525,
Dulaney High School	547
Dunbar High School	429
duPont Manual High School	232
East Carolina University	616
Eleanor Roosevelt High School	41, 69, 71, 120
Elizabeth City State University	226
Emory University	135, 214, 222, 326, 460
Emory University Rollins School of Public Health	147
Emory University School of Medicine	40
Ernest Mario School of Pharmacy at Rutgers University	646
Franklin & Marshall College	609
Frederick High School	63
Frostburg State University	25, 355
Furman University	152
Gaithersburg High School	3, 4, 16, 180, 553, 617
George Mason University	631
George Washington University	90, 132, 175, 223, 437, 569, 645
Georgetown Day High School	26, 284
Georgetown Preparatory	250
Georgetown University	52, 84, 156, 266, 332, 401, 511
Georgetown University School of Medicine	169, 282, 345, 435, 484
Georgetown Visitation Preparatory School	398
Georgia Institute of Technology	85, 274, 418, 566
Gettysburg College	373
Glenelg Country School	605
Gonzaga College High School	191
Governor Thomas Johnson High School	136
Grambling State University	600
Greater New York Academy	501

Groton School	321
Grove City College	466
Hamilton College	408, 564
Hampshire College	452
Harvard College	37, 285, 302, 380, 510
Harvard Medical School	394
Harvard School of Dental Medicine	359
Harvard School of Public Health	333
Haverford College	15, 107, 366, 613
Hayfield Secondary School	208
High Point High School	647
Holton-Arms School	358
Hood College	91
Howard University	61, 100
Hunter College	13
Hunter College High School	588
Illinois Institute of Technology	103
Illinois Wesleyan University	263
Indiana University	504
Indiana University School of Medicine	102
John P. Stevens High School	561
Johns Hopkins Bloomberg School of Public Health	239, 330
Johns Hopkins University	8, 123, 164, 184, 267, 272, 320, 375, 420, 519, 529, 541, 95, 612, 620, 621
Johns Hopkins University School of Medicine	583
Julia Reynolds Masterman Laboratory and Demonstration School	21, 590, 594
Kansas State University	587
Kenyon College	441
Kirksville College of Osteopathic Medicine	622
Lake Worth High School	592
Landon School	127, 411
Langley High School	428
Lexington High School	64, 167
Louisiana State University	311
Louisiana State University School of Medicine	157
Loyola Marymount University	93
Loyola University	556
Manhattan College	477
Manlapan High School	137
Maret School	413, 415
Marquette University	449
Massachusetts Institute of Technology	139, 217, 243, 269, 306, 337, 490, 551
Meharry Medical College	624

Michigan State University	224
Middletown High School	19
Mississippi State University	371
Montgomery Blair High School	34, 182, 218, 219, 260, 309, 322, 393, 406, 419, 471, 623
Morgan State University	602
Morgantown High School	79
Mount Hebron High School	241
Mount Saint Mary's University	606
Muhlenberg College	118, 342
National Cathedral School	193
New College of Florida	623
New Jersey Medical School	128, 637
New York University	385, 396
North Carolina Agricultural and Technical State University	414
North Carolina State University	183, 186, 526
North Miami Beach Senior High School	59
Northeastern State University	365, 382, 383
Northeastern University	486
Northern Arizona University	142
Northwest High School	308
Northwestern University	487, 644
Oberlin College	296
Ohio State University	161, 198, 392
Ohio Wesleyan University	14
Okemos High School	442
Old Dominion University	292
Pacific Lutheran University	384
Palm Beach Gardens High School	62, 589
Parkville High School	531
Peddie School	248
Pennsylvania State College of Medicine	496
Pennsylvania State University	154, 329, 586
Pennsylvania State University Schreyer Honors College	281
Philadelphia College of Osteopathic Medicine	225
Phillips Exeter Academy	56
Pikesville High School	505
Pomona College	143, 188
Pomperaug Regional High School	78
Poolesville High School	89
Prairie School	431
Prairie View A&M University	202
Princeton University	178, 310, 378, 535, 619
Purdue University	43, 68

Quince Orchard High School	287
Radford University	11
Rensselaer Polytechnic Institute	194
Rice University	99, 200
Richard Montgomery High School	7, 10, 70, 95, 252, 288, 300, 323, 631, 634
Rochester Institute of Technology	237, 408
Rockville High School	170
Rutgers University	187, 213, 324, 397, 575
Saint Francis Preparatory School	113
Saline High School	12
San Diego State University	468
San Jose State University	395
Seton Hall Preparatory School	124
Shenandoah Valley Academy	633
Skidmore College	443
Smith College	328, 445
South Dakota State University	168, 171
South Lakes High School	205
Southern Illinois University	142
Spring-Ford Senior High School	45
Springbrook High School	298
St. Albans School	28, 181
St. George's University	5
St. John's College	163, 426
St. Mary's College of Maryland	38, 42, 131, 242, 618
St. Stephen's and St. Agnes School	175
Stanford University	88, 179, 318, 374, 464, 475, 545, 552, 639
State University of New York Stony Brook	478
School of Medicine	
State University of New York University at Albany	210
Stone Ridge School of the Sacred Heart	165, 249, 256
Suitland High School	357
Suncoast Community High School	92, 264, 598, 604
Swarthmore College	611
Syracuse University	628
Texas A&M University	18
Texas A&M University Health Science Center;	227, 338, 341
School of Rural Public Health	
Thomas Jefferson High School for Science and Technology	135, 138, 259, 268, 293, 427, 497
Thomas Johnson High School	25
Thomas S. Wootton High School	27, 160, 234, 305, 407
Tougaloo College	60
Touro College of Osteopathic Medicine	481

Towson University	453, 585
Troy High School	134
Tufts University	270
Tulane University	196, 470
Tulane University School of Medicine	335, 416
UMDNJ – Robert Wood Johnson Medical School	201
Universidad de Puerto Rico	367
University of Arizona	369, 372, 523
University of California, Berkeley	49
University of California, Davis	197
University of California, Irvine	424
University of California, Los Angeles	151, 206, 235, 451, 562
University of California, Riverside	32
University of California, San Diego School of Medicine	153
University of Central Oklahoma	185
University of Chicago	312, 507
University of Dayton	121
University of Delaware	101, 351
University of Florida	31, 44, 162
University of Georgia	119, 236
University of Hawaii	528
University of Iceland	53, 57
University of Idaho	485
University of Illinois	66, 148, 467
University of Iowa	276, 499
University of Kansas	381
University of Kentucky	314
University of Louisiana at Alexandria	493
University of Maryland	67, 80, 106, 107, 109, 141, 172, 195, 203, 215, 220, 228, 80, 294, 299, 303, 316, 343, 348, 377, 386, 391, 405, 417, 421, 422, 440, 446, 448, 492, 18, 533, 570, 574, 597, 620, 621, 626, 647
University of Maryland Eastern Shore	286, 521, 522, 530, 536, 537, 539, 542, 543
University of Maryland School of Medicine	255, 581, 648
University of Maryland School of Pharmacy	614
University of Maryland, Baltimore County	22, 46, 77, 240, 262, 271, 344, 356, 402, 454, 517, 527, 548, 560, 593
University of Massachusetts	388, 538
University of Massachusetts School of Public Health and Health Sciences	319
University of Memphis	457
University of Miami	13, 168, 387
University of Michigan	24, 83, 115, 145, 146, 150, 261, 283, 331, 368, 379, 434, 62, 483, 488, 489, 514, 572, 641
University of Michigan Medical School	173

University of Minnesota	409, 450
University of Missouri	635
University of Missouri Rolla	275
University of Montana	331
University of North Carolina	20, 47, 72, 346, 520
University of Northern Colorado	461
University of Notre Dame	577
University of Oregon	207
University of Pennsylvania	313, 317, 370, 524, 550, 636, 638
University of Pennsylvania School of Medicine	244
University of Pittsburgh School of Medicine	495
University of Puerto Rico	98, 546, 554
University of Puerto Rico, Mayaguez	149
University of Puerto Rico, Rio Piedras	110
University of Rochester	278, 400, 610
University of Scranton	74
University of Southern California	209, 563
University of Texas at El Paso	482
University of Texas at Houston Dental Branch	362
University of Texas at San Antonio	532
University of Texas Medical School at Houston	29
University of the District of Columbia	204
University of the Virgin Islands	129
University of Toledo	97
University of Utah	94
University of Virginia	1, 36, 51, 76, 87, 265, 412, 498, 508, 643
University of Washington	340, 516
University of Wisconsin	9, 130, 354, 515
Vanderbilt University	350, 474, 625
Vassar College	55
Virginia Commonwealth University	50
Virginia Commonwealth University School of Medicine	82, 86
Virginia Polytechnic Institute and State University	23, 540
Wake Forest University	120
Wake Forest University School of Medicine	565
Walla Walla College	632
Walt Whitman High School	139, 258, 289, 347, 462, 489
Walter Johnson High School	17, 336, 389, 390, 404, 463
Washington and Jefferson College	233
Washington College	555, 558, 596
Washington University in St. Louis	304, 502, 549, 559, 608, 627
Watkins Mill High School	629
Wayne State University	277

Wellesley College	417
Western High School	591
Western School of Technology and Environmental Science	579
Wheaton College	245
Whitman College	640
Whitney M.Young Magnet High School	48, 601
Williams College	465, 512
Winston Churchill High School	6, 73, 125, 307, 334, 353, 425
Winston Salem State University	544
Winter Park High School	190
Wittenberg University	458
Wootton High School	2, 105
Yale College	35, 133, 253, 301, 361, 576
Yale School of Public Health	144



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